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ORIGINAL DEPARTMENT.

LECTURE.

PLASTIC SURGERY.

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Of New York.

Delivered before the Hudson Co. (N. J.) Medical Society.

Reported by J. A. EXTON, M. D.

At the meeting of the Hudson County Medical Society of New Jersey, held April 1st, in Jersey City, after the regular business was finished, Prof. A. C. Post, of New York, delivered a very interesting and instructive lecture, illustrated by diagrams, photographs, etc., showing the results of rhinoplastic, blepharoplastic, cheeloplastic and heteroplastic operations in plastic surgery.

Prof. Post said by the term plastic surgery was understood the branch of the healing art which aims to supply deficiencies on the surface of the body, resulting from congenital malformation, from traumatism, or from disease. The term plastic is derived from the Greek verb πλασσω—I form.

Plastic operations consist in the detachment of flaps from neighboring or distant parts, and uniting them with the surface and edges of the vacant space which is required to be filled. The term annoplastic is sometimes employed, the prefix *av* signifying up, and the term implying the forming or building up of the parts to their proper level.

The term autoplastic conveys the idea that the transplanted parts are derived from the patient himself. The term heteroplastic signifies that the new tissue is derived from another person, or from an inferior animal. Blepharoplastic operations are those which are performed to repair defective eyelids. Rhinoplastic operations are for defects of the nose. Cheeloplastic for those of the lips. Prosopoplastic, for those of the face in general.

In most of the operations for the repair of lost or defective features, the transplated flap is best attached by some part of its circumference to the part with which it was naturally connected, until it has acquired a vital union with the part to which it is artificially attached. The portion of the flap which retains its natural connections is called its neck or peduncle.

There are three methods of transplanting pedunculated flaps, known as the Italian, the Indian, and the French methods. Plastic operations were performed by the ancient Egyptians, Greeks, and Romans. In modern times Branca performed rhinoplastic operations in Sicily in 1442.

In 1597, Jaspar Sagliacossi, professor at Bologna, published at Venice a book entitled "De Curtorum Cherurgia por Insitionium." In this book he gave a detailed account of his operations for the restoration of lost noses and other features. This book acquired a world-wide celebrity. This mode of operating consisted chiefly of the transplantation of flaps from the integument of the arm, the hand being bandaged to the head during the process of union. Fabulous accounts of his operations were published, representing the excision of flaps from a poor man's nates to supply the deficiency of a rich man's nose, and it was asserted that the vitality of the new nose depended on the life of the person from whom it was taken. A story is related of a nobleman whose nose was formed from the integument of a Florentine peasant, and which retained its vitality for a number

of years. Suddenly, without any obvious cause, the nose died and became a putrid mass. On inquiry, it was ascertained that the death of the nose coincided with that of the peasant from whom the material for its construction was obtained.

Butler, in his "Hudibras," alludes to such fabulous rumors, when he writes:

> "Thus learned Taliacotius, from
> The brawny part of portus bum,
> Cut supplemental noses, which
> Would last as long as parent breech,
> But when the date of Nock was out,
> Off dropped the supplemental snout."

The mode of repairing defective parts by transplanting flaps from remote regions is called Italian or Talicotian method. The mode of operating by transplanting flaps from adjacent parts, and twisting the peduncle so as to bring the flap into its proper position, is known as the Indian method, having long been practiced in Hindostan, and having been made known to European surgeons about the close of the eighteenth century.

It had long been the custom of the native tyrants of India to mutilate their rebellious subjects by cutting off their noses, and as "necessity is the mother of invention," the persons who were mutilated exercised their ingenuity in finding a remedy for the disfigurement resulting from the mutilation. The operation for this purpose was not performed by physicians or surgeons, but by a class of artisans who were engaged in pottery. The Indian operation for the restoration of lost noses consisted in freshening the edges of the space from which the nose had been excised, and cutting a flap from the integument of the forehead, and twisting its peduncle so as to bring the flap into the position of the nose, and fixing it so as to secure union with the adjacent parts.

The same principle is applicable to the restoration of other features besides the nose. The Indian operation of rhinoplasty was performed in London in 1803, but the first operation was unsuccessful. The first successful operation in Europe was performed in London by Mr. Corpue, in 1814. The operation has since been performed many times by surgeons in different parts of Europe and America. The result of the operation has been quite satisfactory, when enough of the original nose has remained to support the transplanted flap in its new position. But in cases in which the nose has been entirely destroyed, the new organ is an imperfect substitute for the old one, presenting a flattened or depressed appearance. But even in these cases, the new nose is a decided improvement on the cavernous depression which preceded its formation. The French method of performing plastic operations consists in cutting flaps in the vicinity of the defective part, and gliding them into position without twisting the peduncle to any considerable extent.

The Italian method of restoring lost features, by transplanting skin from remote parts, is now very seldom resorted to, except in those cases in which there is no available material in the immediate neighborhood.

The Indian method is often employed, and yields very excellent results. In many cases where the nose or the eyelid is the feature to be repaired, it is the only available method. The French method, by gliding the flap into place without twisting its peduncle, is the best operation in cases in which it is applicable, especially in supplying deficiencies of the lips and cheeks. The principal difficulty to be contended with is the tension of the flap, when it is brought into its new position. This difficulty may, however, in most cases be obviated by giving a decided curve to the peduncle of the flap. In the performance of plastic operations, certain facts have been observed, to which it is proper to direct your attention. On making the *first* incision, the flap becomes pale, but afterwards the parts adjacent to the connecting medium assume a redder color. Dark bluish spots or streaks are often found scattered through the flap. Blood spouts at first from the arteries at the edges of the flap, and afterwards fibrine is effused. The flap contracts considerably, and is disposed to turn inwards; it also acquires an increase of thickness. These changes are most distinctly perceptible in young persons of healthy constitution. The flap loses all sensibility, except at the extremity by which it is nourished, and even there the sensibility is but slight. The flap should be one-fourth or one-third larger than the space which it is designed to fill, and a wide bridge should be left, connecting it with the adjacent part. The flap should contain not only the skin, but a considerable thickness of the subjacent parts, so as to afford a good vascular supply. It is highly important that it should be easily held in position, as any considerable tension will be likely to hinder its adhesion to the adjacent parts. In cutting the flap, it is well to make a pattern of oiled silk or other suitable material, of the size and shape of the space to be filled, and to use the pattern as a guide in making the flap.

In fixing the transplanted flap in its new posi-

tion, one or two pin sutures may be advantageously employed. These should include nearly or quite the whole thickness of the flap, and the points of entrance and exit of the pins should be at least eight or ten millimetres from the edges of the wound. Numerous sutures of fine *black silk* should be employed to secure a perfect apposition of the edges of the wound. The spaces between the sutures should not exceed two or three millimetres. Black silk is preferable to white, as being less irritating, and being more easily seen. The fineness of the silk is indicated by the letter O on the spools. In introducing the sutures, if the edges of the wound are of unequal thickness, the needle should be introduced more superficially on the thicker side.

Before closing the wound, it may be freely irrigated with a solution of mercurial bi-chloride, eight grains to the pint. After applying the sutures, there is no occasion for applying bandages or plaster, but the surface may be freely exposed to the air. When the flap is congested, cold-water dressings may be applied. On the ninth or tenth day, all inflammatory swelling has generally subsided, and the cuticle cracks and peels off. When the flap has been taken from the hairy scalp, the hairs, after a time, will grow, and they may, from time to time, be plucked with forceps. The growth of the hair may be diminished by the free application of lime-water, or of a solution of bi-chloride hydrg. Or the hair-bulbs may be destroyed one by one by a galvano-cautery.

In blepharoplastic operations, when the eyebrow has been destroyed, it may be replaced by a flap from the hairy scalp, the hairs being allowed to grow over the space corresponding with the eyebrow, those above and below being plucked or destroyed. When I first restored the eyebrows in this way, I supposed that the practice was original with myself; but I was afterwards informed that I had been anticipated by Dr. Pancoast, of Philadelphia.

To give proper shape to the newly-formed feature, it is often necessary to excise here and there small portions of the newly-transplated integument. This may be done without hesitation, as wounds in recently transplanted integument heal by the first intention and with great rapidity; much more so than wounds in other parts. This observation is made by Dieffenbach, and I have often verified it in my own practice. When these wounds are allowed to granulate, they bleed freely at first, and the blood is very bright and liquid; the wound appears pale, and the edges are scarcely inflamed; there is little or no suppuration, and the exuded blood forms a scale or scab which after awhile falls off, leaving the wound healed.

When it becomes necessary to separate the edge of the flap from its new attachment, it never heals by the first intention, but always goes through a tedious process of granulation. Sensation is very slowly developed in transplanted parts. Many months, for example, elapse before a new nose, transplanted from the forehead, becomes sensible to pain. Sensibility is first restored near the line of union with the adjacent parts. The newly-formed feature does not begin to perspire, nor to form thick pus when wounded, before twelve months. There is much difference in different cases, in the power of withstanding cold possessed by the transplanted part. A patient, for whom Dieffenbach made a new nose, was attacked with jaundice eighteen months afterward: the whole body, with the exception of the nose, was of a deep yellow color when the patient was warm; the nose was white. When he was cold it was of a dark bluish hue.

The treatment of the cicatricial contractions is a matter of great importance. It is not safe to include cicatricial tissue in flaps which are to be transplanted, or to raise it to any considerable extent from the subjacent parts, as it almost invariably sloughs when it is so treated. But it may be freely divided, and the flap of healthy skin may be united with its divided margin, with a good prospect of union by the first intention. It may be divided into narrow segments by incisions crossing each other at short intervals, and may then be put upon the stretch, and it will not slough if the sub-basal attachments be not interfered with.

Certain special modes of operating, which have been introduced by different surgeons, are worthy of attention.

Dieffenbach introduced the important improvement in treating the deformity occasioned by the loss of the nasal septum from syphilitic disease, and the sinking of the remnants of the nasal pyramid into the cavity. He made longitudinal incisions dividing the nasal pyramid into five strips, attached above and below, and raised them to their proper position, fixing them with pins and sutures.

T. Wharton Jones, in certain cases of ectropion, made a deep triangular flap, the base of which was formed by the margin of the everted lid, and bringing the margin of the lid into its normal position caused the apex of the flap to recede widely

from the part from which it was taken, converting the shape of the wound from the letter V to Y, and fixing the flap in its new position by sutures. This ingenious operation is applicable to other parts besides the eyelids.

Burow, a German surgeon, introduced a new operation for certain deformities of the lips, in which there is a great deficiency in the lower lip and a relative superfluity in the upper lip, or *vice versa*. He took out a triangular portion from the diseased lip, the base of the triangle corresponding with the vermillion border, and extending on one side to the angle of the mouth; and extending the line of the base by an incision into the cheek, he excised another triangle, with its apex in the opposite direction, and uniting the opposite sides of the two triangles by sutures, restored the symmetry of the mouth, lengthening the shortened margin of one lip and shortening the superfluous margin of the other.

In all cheeloplastic operations, it is important that the margin of the newly-constructed lip should be invested with mucous membrane. When a flap has been transplanted from the cheek, the mucous membrane should be drawn out over the margin and attached to the skin by fine sutures.

When there is no healthy mucous membrane for the purpose, the skin itself may sometimes be inverted over the margin.

Within the past fifteen years a new mode of supplying deficiencies of integument upon the surface of the body has been introduced, viz.: transplanting thin portions of skin without peduncles upon recent wounds, or upon granulating surfaces, and maintaining them in position by plasters and bandages. The name skin-grafting, or epidermic grafting, has been applied to this process. It is somewhat analogous to the process of budding or grafting fruit trees. The practice was introduced by Reverdian, a French surgeon, in 1869. Reverdian was at that time Interne in one of the French Hospitals. He shaved off very thin portions of integument of the size of a grain of rice, and applied them with their raw surfaces to the denuded or granulating surface of the part which he wished to invest with new skin. Close apposition was maintained for a number of days, and on removing the dressings, it was found that some of the grafts had acquired a vital union with the surface upon which they had been placed, and from each one of these points there was a radiated growth of new skin. This has now become an established practice in surgery, and it has become a valuable addition to our resources in cases in which there has been an extensive loss of skin.

The practice has been modified by See, Ollier, and Poncet, who successfully transplanted large portions of skin, in some cases larger than a silver dollar.

In grafting portions of skin without peduncles, a very different course is to be pursued from that which is adopted in the transplantation of pedunculated flaps. Instead of including a considerable thickness of subcutaneous tissue, the part to be transplanted should be cut very thin, never including any subcutaneous tissues, and often including less than the whole thickness of the skin.

This mode of grafting has the advantage that it can be applied where there is no available sound skin in the vicinity of the part which is to be restored, and that the new material may be obtained from parts of the body which are covered by clothing, so that the patient will not be disfigured by the cicatrices which follow the excision of the flaps. On the other hand, it has the disadvantage that it does not provide a flap of considerable thickness, such as is required for the restoration of the lips, where the skin must be lined with mucous membrane, to perform its function in a satisfactory manner. The operation is a useful one under some circumstances, but it is not likely to supersede the transplantation of pedunculated flaps.

COMMUNICATIONS.

THE TIME REQUIRED BY THE BLOOD FOR MAKING ONE COMPLETE CIRCUIT OF THE BODY.

BY ROBERT MEADE SMITH, M. D.,
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(*Continued from page* 681.)

The following are the details of two experiments made on this plan:

Experiment 1.—Nov. 24, 1883. Dog. Weight 18 kilo. Experiment conducted as described above; effects of ether had largely passed off before the experiment was made. Time required for pigeon's corpuscle to pass from the left to the right jugular, 20 seconds. Pulse in 20 seconds =55.

BEFORE INJECTION.

Blood pressure.	*Pulse in 15 Sec.*	*Respiration in 15 Sec.*
160 mm.	36	6

AFTER INJECTION.

Blood pressure.	*Pulse in 15 Sec.*	*Respiration in 15 Sec.*
5 seconds, 160 mm.		
10 "	155 "	
15 "	148 " 39 in first	15 sec. 6
20 "	135 "	
30 "	90 " 43 in second	15 " 6
45 "	70 " 38 in third	15 " 7

The experiment was then interrupted for half an hour, when the low pressure produced by the pigeon's blood had passed off. One grm. of potassium ferrocyanide was then dissolved in 10 cc. of normal salt solution, warmed to 38° C., and then injected into the left jugular vein, and the blood collected from the right jugular, and other details followed, as in the case of the injection of pigeon's blood.

BEFORE INJECTION.

Blood pressure.	*Pulse in 15 Seconds.*	*Respiration. in 15 Seconds.*
155	40	7

AFTER INJECTION.

Blood pressure.	*Pulse in 15 Seconds.*	*Respiration. in 15 Seconds.*
5 seconds, 110		
10 " 50		
15 " 30	16 in first 15 sec.	1
20 " 20		
30 " 18	6 in second 15 "	none.
	Dead.	

The blood was then allowed to stand in the watch-glasses until the serum separated; a drop of the latter was then drawn off with a pipette, placed on a porcelain dish, acidulated with dilute hydrochloric acid, and tested with a drop of dilute ferric chloride solution. It was then found that the portion of blood collected *fifteen* seconds after the injection of the potassium salt was the first to form the characteristic blue with the iron. The potassium ferrocyanide, therefore, passed from the left jugular vein to the right in *fifteen* seconds; pulse in 15 seconds = 16.

Experiment 2.—Nov. 30, 1883. Dog. Weight 10 kilo. Details of experiment the same as in the preceding. The pigeon's corpuscles were found in 17 seconds; pulse in 17 seconds = 53.

BEFORE INJECTION.

Blood pressure.	*Pulse in 15 Seconds.*	*Respiration. in 15 Seconds.*
120	33	5

AFTER INJECTION.

Blood pressure.	*Pulse in 15 Seconds.*	*Respiration. in 15 Seconds.*
5 seconds, 120		
10 " 120		
15 " 120	44 in first 15 sec.	6
20 " 120		
30 " 115	50 in second 15 "	7
60 " 60		

The animal was then allowed to remain undisturbed until the pressure again became normal, when 0.4 grm. potassium ferrocyanide, dissolved in 4 cc. normal salt solution, was injected, and the blood collected as before.

BEFORE INJECTION.

Blood pressure.	*Pulse in 15 Seconds.*	*Respiration in 15 Seconds.*
150	36	6

AFTER INJECTION.

Blood pressure.	*Pulse in 15 Seconds.*	*Respiration. in 15 Seconds.*
5 seconds, 120		
10 " 55		
15 " 25	18 in first 15 sec.	2
30 " 15	15 in second 15 "	none.

Heart stopped one minute after injection.

The serum was then tested as in the previous case, and the Prussian blue found in the blood collected 9½ seconds after the injection of the potassium salt. The heart-beats in this period = 14.

The comparison of the times required in the same animal for the circulation of the pigeon's blood and the potassium salt, clearly proves the falsity of the assumption that the salt moves through the vessels with the same velocity as the blood.

Vierordt (*Stromgeschwindigkeiten des Blutes*, Berlin, 1862), who, by his numerous experiments and important modifications and extensions of the plan of research, has identified himself with Hering's method, from a series of seventeen experiments made on dogs with an average body weight of 9.14 kilo., places the mean time of circulation in the dog at 15.22″, and from experiments made on three rabbits of 1.37 kilo. average weight, he gives 6.91″ as the mean time of circulation. In giving these figures, he states that he has been careful to exclude all experiments in which the violent symptoms produced by the injection of the poison occurred within the time that his other experiments made on the same plan, but in which such symptoms did not appear, give as the mean time of circulation. This is, however, manifestly unwarrantable; for, were the substance injected a solid carried mechanically by the blood, any disturbance of circulation accompanied by great reduction in the pulse and blood pressure could only produce reduced velocity of the circulation, and consequently prolong the time required for the circuit of the injected solid around the blood-vessel system. But that in the face of such disturbance, and that, too, of the most violent character, the salt could be distributed with the greatest rapidity throughout the body, clearly proves that it was not mechanically carried by the blood. Thus, in the experiments detailed above, we find that even when given in doses large enough to arrest the heart almost instantly, thus removing the main cause of the movement of the blood, and greatly

reducing its velocity, we find, nevertheless, that the potash salt circulates more quickly even than the time given by Vierordt, and twenty-five per cent. faster than the pigeon's corpuscles are carried by the blood under normal conditions of pulse and pressure; for it should be noticed that the pulse and pressure remain comparatively undisturbed until after the circulation is complete. That the pigeon's cells are not delayed in their passage through the capillaries is proved by the fact that there is never any rise of blood pressure after making an injection of pigeon's blood, as would occur were there any blocking of the circulation in the capillaries.

The following are the results obtained in ten experiments made in the manner described above, to determine the time required for the passage of the pigeon's corpuscles from one jugular vein to the other. In each case the pulse and pressure remained undisturbed until after the circuit was completed.

No.	Animal.	Time of circulation.	Pulse in time of circulation.	Weight.
1.	Dog.....	20 seconds.	55	18 kilo.
2.	"	17 "	53	10 "
3.	"	15 "	50	8 "
4.	"	15 "	47	8 "
5.	"	18 "	44	10 "
6.	Pup.....	20 "	60	3 "
	Averages	17.5 "	51.5	9.5 kilo.
1.	Rabbit.....	14 "		
2.	"	12 "	—	3 "
3.	"	9 "	27	1½ "
4.	"	9 "	35	2½ "
	Averages	11	31	2.3 "

It is seen, in the above series of experiments made on dogs with about the same average weight as those experimented on by Vierordt (9.41 kilo., and 9.5 kilo.), that the mean time required by the pigeon's corpuscles for the jugular circuit is 17.5″, as compared with 15.22″ obtained by Vierordt for the potassium salt; while in the rabbit, 11″ was obtained as a mean as compared with 6.9″. Consequently, in the dog nearly 15 per cent. of the time stated by Vierordt as expressing the mean time, and in the rabbit over 59 per cent., are due to diffusion.

In this connection it might be suggested that the rapidity of circulation is greater in small animals than in large, not only on account of the shorter path to be traversed, as insisted upon by Vierordt, but because small animals contain, both absolutely and relatively as to body-weight, a smaller volume of blood; and since it has been shown that diffusion has something to do with the result, the salt will diffuse more rapidly into a small volume of fluid than into a large; therefore, the element of diffusion is more marked in the rabbit than in the dog.

2. *The Value of the Infusion Method in Determining the Mean Time of Circulation.*—It may at the outset be admitted, with Hering and Vierordt, that if the mean velocity of the circulation could be determined for the jugular path, it would probably express the mean time required for the total amount of blood to complete the circuit of the body. For while the portion of the blood which leaves the aorta to pass through the coronary arteries to reach the right auricle follows a shorter path than the blood which passes through the capillaries of the feet or the portal system, the velocity in the large trunks is so extremely high that the difference in time in passing through two large trunks, even of such extremes of length as the carotid at its origin and the metatarsal, is so slight as scarcely to be appreciated. The great part of the time of the circulation is therefore consumed in passing through the capillaries, and the jugular path may be regarded as giving a mean between the two extremes of distance above alluded to. It therefore only remains to determine whether the mean time required for the jugular circuit has been or can be obtained by the infusion method, or by the modification which I have employed.

It has already been shown that the elements of diffusion in this method cannot be neglected, since, even after stoppage of the heart, when the only remaining propelling force acting on the blood is the rapidly decreasing difference in pressure between the arterial and venous systems, the potassium salt is carried around the circuit even in less time than is stated by Vierordt to be the mean normal time of circulation, and in considerably shorter time than is required for the pigeon's corpuscles. But even this time required for the circulation of the pigeon's corpuscles is far above what must be the true mean time. For we know that in all cases of movement of fluids in tubes, the portion of the fluid in the centre of the tube moves with a much higher velocity than the portions in contact with the walls of the tube. It is also known that the red blood corpuscles, from their greater specific gravity, are carried in this central column of greatest velocity, and, *a fortiori*, pigeon's corpuscles, having a greater specific gravity than non-nucleated mammalian cells, will have the maximum velocity of the moving column. Consequently, the time required for the circuit of the pigeon's corpuscles will be much shorter than that required for the mass of the blood.

An experiment of Schklarewsky (Hermann, *Handbuch der Physiologie*, vol. iv., p. 315) suggested

to me a means by which the minimum velocity of the blood could be obtained. He found, when particles of different densities suspended in a fluid were propelled through capillary tubes, that the particles with the greatest density moved with the highest velocity, while the lighter particles moved in the peripheral portions of the stream, where the velocity was the lowest. This fact serves to explain the motion of the red blood cells in the axis stream, while the lighter white blood corpuscles move along the walls of the vessels. If, therefore, a fluid containing suspended particles lighter than the red blood disks, and small enough to pass through the capillaries, is injected into the blood current, it may be assumed that the lighter particles will be thrown out of the more rapidly moving central current into the slower moving excentric layers.

The following experiment seems to indicate that this is actually the case:

About 1 gram of carmine was rubbed up in a mortar with 30 cc. of normal salt solution, poured into a conical glass vessel and allowed to stand for twenty-four hours; by this time all the larger carmine particles had settled to the bottom of the glass, and the upper layers, as proved by microscopic examination, contained only carmine granules, of which the largest were smaller than the mammalian red blood cells. This was determined by placing a drop of the carmine fluid with a drop of blood on a slide under the microscope. Ten cc. of this fluid were then injected into the external jugular vein of a dog, and the time which elapsed before the carmine particles appeared in the blood drawn from the opposite jugular vein was determined in the same manner as was made use of in the experiments with the pigeon's blood.

The following are the details of the experiment:

Experimeut 11.—Dog. Weight, 10 kilo.

BEFORE INJECTION.

Pulse in 15 seconds.	Pressure.	Remarks.
35	110	

AFTER INJECTION OF 10 CC. OF CARMINE FLUID.

36 in first 15 seconds.	110	Carmine granules found in blood drawn from opposite jugular in 35 seconds after injection. Pulse in 35 seconds=85.
36 in second 15 "	115	
37 in third 15 "	118	

Without laying too much stress on this single experiment, it is at any rate probable that a mean between this extreme and the maximum velocity shown by the pigeon's corpuscles will give the mean time of the circulation. Consequently, I would place the average time required to complete the circulation in a dog of 10 kilo. weight as between 25 and 30 seconds. It will be seen that this statement can be confirmed by another line of argument.

If the amount of blood driven out of the left ventricle was a constant quantity, the rapidity of the circulation would be in direct ratio to the number of pulsations of that organ. But as we know that the amount of blood thrown out of the heart at each contraction is subject to great variability, and as I have shown in the paper before alluded to that this amount falls considerably below the estimate of the ventricular capacity made post-mortem, the attempt of Vierordt to formulate a law as to a definite relation between the duration of the circulation and the number of ventricular systoles which would agree with the numbers obtained by him as expressing the time of the circulation, is not warranted by the facts in the case.

Thus, Vierordt stated that in all species of animals the time required for the completion of the circulation was the time required by the heart for making *twenty-seven* pulsations; consequently, each ventricular contraction must discharge $\frac{1}{27}$ of the entire bulk of blood in the body.

Now, according to the calculations of Heidenhain, which are generally accepted as correct, the average amount of blood in a dog is $\frac{1}{13}$ of his body's weight. A dog weighing 10 kilo. will, therefore, contain 769 grams of blood; or as the specific gravity of the blood is about 1050,730 cc. of blood. To propel this volume of blood once around the body in twenty-seven pulsations of the heart, at each contraction the ventricle must discharge 27 cc. of blood, a quantity which is about double the amount which the ventricle of a dog weighing 10 kilo. can be made to contain.

There can be no doubt, however, though the statements of Vierordt in this connection are incorrect, that there must be a definite relation between the number of heart-beats and the time of circulation; for the application of the same line of argument to the data I have obtained gives a result which almost absolutely coincides with the figures obtained by direct measurement. In a dog weighing about 10 kilo., about 12 cc. would be thrown out of the ventricle at each contraction under normal respiration; and as the amount of blood in the body would in a dog of this size be 730 cc., sixty pulsations of the heart would be required to drive the entire amount once around the body. Placing the pulse-rate at 120 in the minute, the circulation would be completed in 30 seconds, a number which is identical with the figures given above.

It also appears that the number thus obtained

by deduction as giving the number of heart-beats to complete the mean circulation is nearly in accordance with the number of pulsations required for the circulation of the pigeon's corpuscle; for if 50 pulsations are required for the maximum velocity and 85 for the minimum, the mean between these, 67, is near enough to the figure obtained by deduction to show that the method is nearly absolutely correct.

While there can be no doubt that an abnormal increase in the rate of the pulse, by diminishing the amount of blood thrown out of the ventricle, will lengthen the time required by the blood to complete the circuit of the body, it cannot be urged that in my series of experiments the pulse was sufficiently accelerated by the ether to cause any retardation of the circulation. For in experiment 1, where the effect of the ether had passed off before the estimate was made, the time of circulation was even longer than in cases in which the narcosis was more profound.

There is one other point in which my experiments fail to confirm the results obtained by Vierordt. Although I cannot find in his paper before referred to any experiments to substantiate the assertion, he makes the statement (*Grundriss der Physiologie des Menschen*, 5te Auflage, 1877, S. 162) that moderate stimulation of the vagi lengthens the time of circulation by reducing the number of pulsations of the heart, but that nevertheless 26 contractions are here also required to complete the circuit; from which he makes the deduction that moderate irritation of the vagus reduces the number of the heart's contractions without modifying the amount of blood thrown out at each systole.

Of course, since I have not seen the details of the experiments on which these conclusions are based, it is impossible to form any opinion as to what is meant by "moderate" stimulation of the vagus.

As far as I know, no measurements of the quantity of blood thrown out from the heart during vagus irritation have ever been made, though a diminution of pulse-rate by cold has been found by Howell and Donaldson (*Proc. Roy. Soc.*, No. 226, 1883,) to augment the quantity of blood discharged at each systole. And if the irritation was not sufficiently severe to cause much reduction in blood-pressure or velocity, it is conceivable that the pulse might be considerably reduced in frequency, but that the reduction would be balanced by the larger volume of blood discharged at each contraction. The only difference, therefore, in the phenomena of circulation during vagus irritation from the normal condition, would be that fewer heart-beats would be required to complete the circulation. The following experiments show this to be the case:

Experiment 12.—December 18, 1883. Dog. Weight, 11 kilo. Pigeon's blood injected, and time of circulation estimated as before. Irritation of vagus with induction current commenced at moment of injection.

BEFORE INJECTION.

Pressure.	Pulse in 15 seconds.	Respiration.	Remarks.
180 mm.	37	5	

AFTER INJECTION AND VAGUS IRRITATION.

140 mm.	16 in first 15 seconds.	Vagus irritated 31 seconds. Corpuscle found in 19 seconds. Pulse in 19 seconds = 21; normal pulse in 19 seconds = 50.
150 "	20 in second 15 "	
140 "	32 in third 15 "	
120 "	48 in fourth 15 "	

Experiment 13.—December 20, 1883. Dog. Weight, 14 kilo. Conditions of experiment the same as in preceding.

BEFORE INJECTION.

Pressure.	Pulse in 15 seconds.	Respiration.	Remarks.
160	35	7	

AFTER INJECTION AND IRRITATION.

140	18 in first 15 seconds.	Vagus irritated 44 seconds. Corpuscle found in 14 seconds. Pulse in 14 seconds = 17. Normal pulse in 15 seconds = 35.
160	24 in second 15 "	
130	30 in third 15 "	
90	47 in fourth 15 "	

HOSPITAL REPORTS.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER.

Reported by W. H. SEELYE, A. M., M. D.

Pneumonia.

The patient is a native of Canada, 29 years of age, married, and a porter by occupation. Was admitted to the hospital last evening. There is no family history bearing on his present illness. He has never had syphilis, rheumatism, or malarial fever. Is temperate in the use of alcoholic liquors. He was in good health until a week ago last Tuesday, when he took cold, and suffered from soreness and a sense of oppression in the left side of his chest. He went about, however, until last Friday, December 23d, when he had a severe chill, after which he felt very ill. Then he had a cough which was accompanied by a glairy, viscid, mucous expectoration, and continued soreness over the left chest and shortness of breath. Since then he has had ardor-urinæ, and he passes his water frequently and in small quantities. He suffers constantly from anorexia, and he has pain and tenderness extending all over the left chest and about the epigastric region and radiating towards the left groin. He went to a physi-

cian outside, who applied a mustard poultice over the lower part of the chest, and told him to wear an oil-silk jacket, and he said that he had either a pleurisy or a pneumonia. On his admission the dyspnœa, pain, and cough were very intense; and his pulse was 118, respiration 24, and temperature 103.6. His urine contained no albumen or casts.

Inspection.—There is marked dyspnœa and a loose cough. The shoulders and back are covered with a profuse acne eruption, which was produced by the oil-silk jacket. The face is flushed and dark.

Palpation.—The movements of expansion and elevation of the chest are lessened upon the left side, and the vocal fremitus is a little more marked. There is great sensitiveness of the skin, and tenderness upon pressure over the whole of the left side.

Percussion.—Over the left chest anteriorly dullness extends from the fifth rib downwards to the base of the lung. It extends a little higher up in the axillary region, and posteriorly it covers the whole area of the left chest below the spine of the scapula. Pulmonary resonance is normal on the right.

Auscultation.—Broncho-vesicular respiration and bronchophony are heard over the whole of the left chest. The first sound of the heart is feeble.

The history of this case, gentlemen, is not a perfectly clear history of a pneumonia beginning at the time of his first illness, but it is similar to another case you saw here a short time ago, where there had been a previous illness before the acute attack. This man was first taken ill two weeks ago with a cough and a sense of soreness and oppression in the left chest; but he kept about until last Friday, coughing and complaining of malaise. Then he had a chill, which was followed by a sharp pain in the side, referred to the region of the umbilicus, and a difficulty in breathing. He went to a doctor, who told him to wear an oil-silk jacket; and he applied a blister to his chest and told him that he had either pleurisy or pneumonia. And the history since then has been the history of a pleurisy or of an acute pneumonia. Last evening, upon his admission, he was in great distress from œdema of the lungs which demanded immediate attention. After he was relieved by treatment, a physical examination was made, and the same signs were found as we have obtained to-day. These are signs of consolidation of the lung, but modified in such a way as to give one a suspicion that they may be due to a pleurisy. Over all the region of dullness there was obtained, not a distinct bronchial respiration, such as is heard in pneumonic consolidation, but rather a distant broncho-vesicular murmur with bronchial voice. But neither the respiratory nor the voice sounds were so distinct as in complete consolidation of the lung. It was thought, therefore, that there might be fluid in the pleural cavity, and so a hypodermic needle was inserted to determine this; but no fluid was found. Hence I conclude that the physical signs denote the existence of a circumscribed limited pulmonary consolidation, rather than a pleurisy, with effusion confined to circumscribed limits. We sometimes see cases of pleurisy where the effusion is confined within certain limits by the formation of fibrous adhesions between the costal walls and the pleura of the lung, and thus we get a circumscribed pleuritic effusion of serum, or it may be a pleuritic abscess. And the reason that it was thought that this might be a case of pleurisy, with a circumscribed effusion, was because of the absence of the usual auscultatory signs found in cases of pneumonic consolidation. But of course the failure to find any fluid is the crucial test.

This is evidently not a case of ordinary croupous pneumonia, but in its origin and history it is very similar to a case which you saw in another ward some time ago, where there was a period of preceding symptoms just as there was here. These were symptoms of a bronchitis which was neglected, and so ran on into a catarrhal pneumonia, which ran a limited course and terminated on the eighth or ninth day, and which was severe in degree. This man since he came in has had a temperature of nearly 104°, and to-day at 12 o'clock it was 103.8°, but it has now fallen to 103.2°, with a pulse of 120, and respirations 24. The expectoration is rather that of a bronchitis than a pneumonia. And in fact the consolidation of the lung tissue here is not as absolute as in croupous pneumonia, but it is a condensation produced by a partial filling of the air cells.

Since this man came in he has been a good deal oppressed for breath, and his breathing is labored and his face becomes red, and I doubt not he suffers constantly from that most distressing sensation, a want of breath. The reason of this is that the breathing space is much impaired, and he probably does very little breathing with the left lung, but most of it with the right. The cough and respiration are such as indicate a pretty intense congestion, giving rise, I have no doubt, to an œdematous condition, perhaps of both lungs. His pulse is good, not strong, but regular, compressible, and rather feeble; and the first sound of the heart is feeble. Now, when you take into consideration the character of his breathing and of his pulse, it is evident that these symptoms demand special attention. The heart needs to be stimulated in order to help it to overcome the pulmonary obstruction. So he is now being stimulated with alcohol and digitalis, and he has been taking one ounce of whiskey and ten drops of the tincture of digitalis every two hours, and he has also been cupped over the chest, so his breathing is now a great deal better than it was. His mind is perfectly clear, and his brain seems to be well nourished, and there is no delirium, and on the whole he is doing very well. But the case demands very strict and watchful attention, for if such cases are watched with great care and attention you will frequently save life. They are not cases to purge and bleed, and to treat upon the old antiphlogistic plan. You cannot shorten the duration of the disease, but you must support the patient, and watch him while he goes through with the regular course of the malady. This has been called "expectant treatment," but in the strict sense of the word it is not truly such; for you are not waiting for the disease to cure itself, but you are watching for such emergencies as demand the attention of the doctor, and these are almost always of the nature of embarrassment from a feeble circulation. A good deal can be

done for his relief by cupping; and repeated successive dry cuppings, with alcohol and digitalis, and with opium, if there is much restlessness, pain, and discomfort, will constitute the armament which you are to use in guiding the patient safely through.

There is one point in the history which is suggestive. He refers his pain to the region of the umbilicus. Many cases of pleurisy have been mistaken for colic because of this location of the pain. It is not at all uncommon when a pleurisy is in the lower portion of the chest, to refer the pain to some point in the upper abdominal region, or even lower than the umbilicus; and so it may be sometimes mistaken for a peritonitis, as well as a colic. There is one other error which is sometime made in the diagnosis of a pneumonia, though not in adults as a rule. But it not infrequently happens in children that a pneumonia is mistaken for inflammation of the brain. In children of from three to ten years of age, an attack of pneumonia is often ushered in with convulsions, delirium, and cerebro-spinal symptoms, and therefore your attention is likely to be drawn entirely away from the chest. You should remember this fact, and be on the lookout when you find these symptoms in a child. He may not complain of any pain in the chest, and he may not have any cough, but there will merely be cerebro-spinal excitement to show the onset of the disease.

This patient is now complaining of the insomnia of fever, which is sometimes very distressing, or perhaps it is here more the insomnia which not infrequently accompanies those conditions which necessitate constant attention to the breathing, which, if not automatic, requires a great deal of attention. This occurs in cardiac dyspnœa and in pneumonia, when the patient is "almost dead for sleep" as they often express it; but as soon as they fall into a doze they are aroused immediately from lack of breath; and they have to keep on the alert all the time, so that they can not lose consciousness long enough to procure any refreshing sleep. It will not do here to give a very large dose of opium, which would diminish the sensibility of the respiratory centres; but the wisest plan is to stimulate the heart, and at the same time to give moderate doses of opium. Digitalis is a very valuable remedy for this dyspnœa, because it allays the irritability of the respiratory centre, and supplies it more thoroughly with blood. And opium combined with digitalis will produce better effects than opium alone.

In connection with this case I would like to make some remarks upon the subject of feeding in acute diseases. With this man nausea has been a troublesome symptom, and so he has been able to take food in small quantities only.

In many cases of pneumonia this embarrassment does not exist, and in many other cases of acute illness it does not. Now, while I believe that in some instances patients suffering from acute diseases may suffer for the want of food, yet I believe that in many more instances they are forced to take food unnecessarily. The tendency in the last twenty-five years has been to feed and stimulate very largely, and I think that food has been too much crowded oftentimes, and that injudicious feeding is not rare in the management of acute diseases. You probably all know pretty well from personal experience how the stomach rebels against food if you are not feeling well, and how hard it sometimes is to persuade yourself to eat. Now, while I do not believe it is safe to yield absolutely to this objection to food, yet I do think it is dangerous to push the food too far, and to make a patient take it if he does not want to, beyond a certain point. It has recently been demonstrated pretty clearly that a man in perfect health can starve himself for a good while without suffering any injury; and I do not believe that a little judicious starving in acute diseases is injurious, and at all events it is better than crowding the food. The proper method is to give food in small quantities, and at not too short intervals; and it should be of the most nutritious quality, and given without consulting the taste or the whims of the patient. The majority of cases should be fed with milk, and the preparations of meat, and animal broths; and they should take no solid food, or but very little. There is a great tendency nowadays to feed these patients with farinaceous foods, and gruel, and upon what is called a sick diet; and this is very mischievous, because it gives rise to a fermentative dyspepsia, which is an additional source of suffering, and oftentimes it becomes a serious complication. Gruel, farinaceous substances, and sweets should be carefully avoided; and the strictest directions should always be given as to the kind, quality and quantity of food, as well as of the medicine. And the patient should be allowed no latitude, but should be made to take the food just as it is ordered. And I think there is no more important function, on the part of a doctor, than to insist with the most absolute strictness upon the kind, quality, and amount of food to be given to a sick person. And you will often find that a great deal of mischief has been done in your absence, from a failure to impress upon the attendants the importance of the food.

Patients, as a rule, are no longer treated in private practice as they used to be, but hospital methods and discipline are finding their way into the homes of the sick, as they should. The management of the patient was formerly left to the nurse and attendants, and the doctor had nothing to say about it. But now it is his place to give directions as to the care of the patient, and he should see to it that the food is not crowded. He should always consider the general condition of the patient when in health, and his age, digestive powers, and habits, and bear in mind that there is more danger of overcrowding the food than of not giving enough.

MEDICAL SOCIETIES.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

(*Continued from page* 686.)

It has already been stated in this memoir that cerebral meningeal syphilis may coexist with various forms of insanity, and cases have been cited in proof thereof. It is, of course, very probable that in some of such cases there has been that double lesion of membrane and gray brain-matter which has just been demonstrated by report of autopsies; further, if we find that there is a

syphilitic insanity, which exists without evidences of meningeal syphilis, and is capable of being cured by anti-specific treatment, such insanity must be considered as representing the disease of the gray matter of the brain. Medical literature is so gigantic that it is impossible to exhaust it, but the following list of cases is amply sufficient to prove the point at issue, namely, that there is a syphilitic insanity, which exists without obvious meningeal disease, and is capable of being cured by anti-syphilitic treatment:

No.	REPORTER AND JOURNAL.	SYMPTOMS.	RESULTS. REMARKS.
1	Louis Streisand . . . . . Die Lues als Ursache der Dementia. Inaug. Diss. Berlin, 1878.	Epilepsy, delirium of exaltation, alteration of speech, headache, failure of memory.	Rapid cure with mercury.
2	Ibid	Delusions, delirium, general mania, great muscular weakness.	Cure with mercury.
3	Dr. Müller, of Leutkirch . . . . Journal of Mental Dis., 1873–4, 561.	Symptoms resembling general paralysis, and diagnosis of such made until a sternal node was discovered.	Cure by iodide of potassium.
4	Fr. Esmarch and W. Jersen . . . Allgem. Zeitschrift f. Psychiatrie.	Sleeplessness, great excitement, restlessness, great activity, incoherence and violence.	Cure by mercury.
5	M. Leidesdorf . . . . . Medizin. Jahrbücher, xx. '64, 1.	Complete mania, played with his excrement, and entirely irrational.	Complete cure by iodide of potassium.
6	Dr. Beauregard . . . . . Gaz. Hebdom. de Sci. Med. de Bordeaux, 1880, p. 64.	Symptoms resembling those of general paralysis.	Cure by iodide of potassium.
7	M. Rendu . . . . . Ibid.	Loss of memory, headache, irregularity of pupils, ambitious delirium, periods of excitement, others of depression, embarrassment of speech, access of furious delirium ending in stupor.	Mercurial treatment, cure.
8	Ibid	Hypochondria, irregularity of pupils, headache, failure of memory, melancholy, stupor.	Mercurial treatment, cure.
9	Dr. Albrecht Erlenmyer . . . . Dei luëteschen Psychosen, Nuewied, 1877.	Melancholia with hypochondriasis, sleeplessness, fear of men, and belief they were all leagued against him.	Iodide of potassium, cure.
10	Ibid	Religious melancholia, with two attempts at suicide, ending in mania.	Iodide of potassium, cure.
11	Ibid	At times very violent, yelling, shrieking, destroying everything she could get hands on, at times erotomania; no distinct history of infection, but her habits known to be bad, and had bone ozœna and other physical syphilitic signs.	Iodide of potassium, cure.
12	Ibid	Epileptic attack followed by a long soporose condition, ending in mental confusion, he not knowing his nearest friends, etc., almost dementia.	Cured by mercurial inunction.
13	Ibid	Great fear of gendarmes, etc., mania, with hallucinations, loud crying, yelling, etc., then convulsion, followed by great difficulty of speech.	Cured by mercurial inunctions with iodide internally; subsequently return of convulsions, followed by hemiplegia and death.
14	Ibid	Great unnatural vivacity and loquacity, wanted to buy everything, bragged of enormous gains at play, etc.; some trouble of speech.	Iodide of potassium cure. Attended to business and seems as well as before. Relapsed. (See Symptoms.)

NO.	REPORTER AND JOURNAL.	SYMPTOMS.	RESULTS. REMARKS.
	Ibid . . . . . Relapse of case 14.	Fifteen months after discharge from asylum, relapse; symptoms developing very rapidly, delirium of grandeur of the most aggravated type with marked progressive dementia, failure of power of speech, and finally of locomotion.	Failure of various anti-specific treatment.
15	Dr. A. Erlenmeyer . . . . . Die luëteschen, etc.	Failure of mental powers, inequality of pupils, trembling of lip when speaking, uncertainty of gait, almost entire loss of memory, once temporary ptosis and strabismus.	Iodide of potassium in ascending doses failed. Recovery under mercurial inunctions.
16	Ibid	Failure of mental powers, pronounced delirium of grandeur, hallucinations of hearing, failure of memory, strabismus and ptosis coming on late.	Iodide of potassium, corrosive sublimate injections. Cure.
17	Ibid	Failure of memory and mental powers, slight ideas of grandeur, disturbance of sensibility and motility, aphasia coming on late.	Cure with use of iodide and mercurial inunctions.
18	Ibid	Melancholy, great excitability, ideas of grandeur, after a long time sudden ptosis and strabismus.	Iodide of potassium failed; mercurial course improved; joint use cured patient.
19	Ibid	Various cerebral nerve palsies, great relief by use of mercurial inunctions, then development of great excitement, delirium of grandeur, failure of memory and mental powers, and finally death from apoplexy; no autopsy.	
2	Dr. J. B. Chapin. . . . . Amer. Journ. Insanity, vol. xv. p. 249.	Melancholia with attempted suicide, epilepsy, somnolent spells.	Iodide of potassium, cure.
21	Ibid	Acute mania, noisy, very destructive; syphilitic disease of tibia.	Iodide of potassium, cure.
22	Dr. Snell	Maniacal excitement.	Cured by specific treatment.
23	Wm. Smith . . . . . Brit. Med. Journ., July, 1868, p. 30.	Apathetic melancholy, indelicate, speaking only in monosyllables, and much of the time not at all, sullen and menacing.	Rapidly cured by conjoint use of iodide and mercurial. The symptoms first developed 3 months after chancre.

A study of the brief analyses of symptoms just given shows that syphilitic disease of the brain may cause any form of mania, but that the symptoms, however various they may be at first, end almost always in dementia, unless relieved.

Of all the forms of insanity, general paralysis is most closely and frequently simulated by specific brain disease. The exact relation of the diathesis to true, incurable, general paralysis, it is very difficult to determine. It seems well established that amongst persons suffering from this disorder, the proportion of syphilitics is not only much larger than normal, but also much larger than in other forms of insanity. Thus Dr. E. Mendel (*Progres. Pural. der Irren*, Berlin, 1880,) found that in one hundred and forty-six cases of general paralysis, one hundred and nine, or 75 per cent., had a distinct history of syphilis, whilst in one hundred and one cases of various other forms of primary insanity only 18 per cent. had specific antecedents.

Various opinions might be cited as to the nature of this relation between the two disorders, but for want of space the curious reader is referred to the work just quoted, and to the thesis of C. Chauvet (*Influence de la Syph. sur les Malad. du Syst. nerveux*, Paris, 1880,) for an epitome of the most important recorded opinions.

Those who suffer from syphilis are exposed in much greater proportion than are other persons to the ill effects of intemperance, sexual excesses, poverty, mental agony, and other well-established causes of general paralysis. It may be that in this is sufficient explanation of the frequency of general paralysis in syphilitics, but I incline to the belief that syphilis has some direct effect in producing the disease. However this may be, I think we must recognize as established, the

opinion of Voisin (*Paralysie générale des Alienés*, 1879.) that there is a syphilitic peri-encephalitis which presents symptoms closely resembling those of general paralysis. Such cases are examples of the pseudo-paralysie générale of Fournier (*La Syphilis du Cerveau*, Paris, 1879).

The question as to the diagnosis of these cases from the true incurable paresis is of course very important, and has been considered at great length by Voisin (*loc. cit.*), Fournier (*loc. cit.*), and Mickle. (*Brit. and For. Medico-Chirurg. Review*, 1877.)

The points which have been relied upon as diagnostic of syphilitic pseudo-general paralysis are:

The occurrence of headache, worse at night and present amongst the prodromes.

An early persistent insomnia, or somnolence; early epileptiform attacks.

The exaltation being less marked, less persistent, and perhaps less associated with general maniacal restlessness and excitement.

The articulation being paralytic rather than paretic.

The absence of tremulousness, especially of the upper lip (Fournier).

The effect of anti-specific remedies.

When the conditions in any case correspond with the characters just paragraphed, or when any of the distinguishing characteristics of brain syphilis, as previously given in this memoir are present, the probability is that the disorder is specific and remediable. But the absence of these marks of specific disease is not proof that the patient is not suffering from syphilis. Headache may be absent in cerebral syphilis, as also may insomnia and somnolence. Epileptiform attacks are not always present in the pseudo-paralysis, and may be present in the genuine affection; a review of the cases previously tabulated shows that in several of them the megalomania was most pronounced: and a case with very pronounced delirium of grandeur, in which the autopsy revealed unquestionably specific brain lesions may be found in Chauvet's Thesis, p. 31.

I have myself seen symptoms of general paralysis occurring in persons with a specific history, in which, of these so-called diagnostic differences, the therapeutic test was the only one that revealed the true nature of the disorder. In these persons a primary, immediate diagnosis was simply impossible.

Case fourteen of our table is exceedingly interesting, because it seems to represent as successively occurring in one individual both pseudo- and true general paralysis. The symptoms of general paralysis in a syphilitic subject disappeared under the use of mercury, to return some months afterwards with increased violence, and with a new obstinacy that resisted with complete success anti-syphilitic treatment. Such a case is some evidence that syphilis has the power to produce true general paralysis.

In conclusion, I may state that it must be considered as at present proven that syphilis may produce a *disorder whose symptoms and lesions do not differ from those of general paralysis; that true general paralysis is very frequent in the syphilitic; that the only perceptible difference is one of curability; that the curable sclerosis may change into or be followed by the incurable form of the disease.* Whether under these circumstances it is philosophic to consider the so-called pseudo-general paralysis and general paralysis as essentially distinct affections, each physician can well judge for himself.

EDITORIAL DEPARTMENT.

PERISCOPE.

Thermo-Tracheotomy.

In the *Lancet*, May 10, 1884, Dr. Frank Marsh thus writes:

Few operations are easier of performance on the dead body than that of tracheotomy, and oftentimes few are so difficult upon the living, and therefore the following remarks on the use of Paquelin's thermo-cautery for that purpose may not prove uninteresting. Although of late highly recommended and frequently performed by leading Continental surgeons, notably by Poinsot, Bœckel, and Krishaber, no record of this operation has appeared, to my knowledge, in recent medical literature in England. At first sight it would seem to possess great advantages over the usual method with the scalpel, the bloodlessness of the whole proceeding proving attractive, especially to the timid operator. In a certain proportion of cases, I might even say a large proportion, the use of the cautery is obviously inadmissible, time not being given for its preparation, even were it at hand, as in spasm of the glottis from whatever cause, acute obstruction from lodgment of foreign body, acute œdema, and all those cases in which the patient is at the last gasp before the surgeon is summoned. Unfortunately, in not a few of these instances one is frequently too late even with the knife. It is also unsuitable for those cases where tracheotomy is performed for the purpose of extracting a foreign body in the air-passages, the immediate union of the wound afterwards being a desideratum if the attempt has proved successful. On the other hand, it would seem to be especially indicated in cases of diphtheria, or in syphilitic affections of the larynx, where, as a rule, the process of asphyxia is slow, and where the eschar to a great extent would prevent the infective process spreading to the wound. The disadvantages peculiar to this operation are: the hard and hot eschar on the surface of the wound, preventing the finger being used as a guide during the process of the operation; the inflammatory action in the parts around during the separation of this eschar; the increased liability to secondary hemorrhage from implication of

arteries in the sloughing process; the large wound consequently formed; and the subsequent trouble from cicatricial contraction. All these drawbacks, with the exception of the last, are well illustrated in the following case:

Ada P——, aged six, suffering from diphtheria, was admitted into the detached infectious wards on the 10th of October last (under the care of Dr. Reid), with a view to tracheotomy being performed.

On admission there was great dyspnœa, very little air entering the chest. This increased so much the next few hours that immediate tracheotomy afforded the only hope, and I decided to give the cautery a trial. The disease being extensive, it was desirable to perform the operation as low down as practicable. The child had a short and fat neck, and the thyroid veins were much engorged, owing to the partial asphyxia, material obstacles to begin with. Using a knife-shaped point, with a series of light touches (following Krishaber), keeping strictly in mid-line, and pressing forward the trachea as much as possible with the finger and thumb of the left hand on either side, the latter was at length reached a good inch from the surface, the whole proceeding being perfectly bloodless, and, so far as that was concerned, eminently satisfactory. It was almost impossible to tell the position of the trachea in the wound by tactile examination during the process, and difficult to recognize it by sight among the seared parts; the increased resistance and tendency of the cautery to roll off into the loose areolar tissue around being the chief indications it was reached. This tendency proving an obstacle to opening it, a scalpel was used for the purpose, and with some little difficulty, on account of the depth of the trachea from the surface, a bivalve cannula was introduced, over which a shield of wire, covered with two layers of gauze, was fixed, and, being occasionally moistened with oil of eucalyptus, kept the inspired air both aseptic and free from particles of dust, etc. The child immediately experienced great relief, and on the following day seemed much better, but on the third and fourth days the parts around were much swollen and inflamed, a source of much discomfort to the child. On the morning of the fifth day a severe attack of secondary hemorrhage occurred, evidently from the right inferior thyroid artery becoming implicated in the sloughing process attendant on the separation of the eschar. This was stopped by pressure of lint soaked in strong tincture of perchloride of iron, but not before a good quantity of blood had passed down into the bronchi, the cannula having been removed by the nurse at the onset of the bleeding. This caused severe dyspnœa, the child being unable to expel the blood, and in spite of remedies death took place in about two hours afterwards.

This case, I think, fairly shows the difficulties and drawbacks to this method. With the knife there would undoubtedly have been a great amount of venous bleeding, but it would soon have ceased upon the re-establishment of free respiration; also the position of the trachea could have been defined during the operation, a matter of some import when deeply seated; neither do I think that secondary hemorrhage would have occurred. Again, had the child lived there would have been the disfigurement from a large scar, and in all probability trouble would have arisen from the pressure effects consequent on the cicatrization and subsequent contraction of an unnecessarily large wound. This, also, would have been avoided by the use of the scalpel. Now, in an adult with a fairly thin neck there is seldom any venous or capillary hemorrhage of consequence, and on this account, therefore, the cautery would hardly be needed, and it would prove but of little avail in checking bleeding from an artery of any magnitude, should one be met with, as occasionally happens, when, for instance, an additional thyroid artery is present; indeed, it would only increase the difficulty of applying torsion or ligature by the consolidation of the parts around. In adults it might be of some use in keeping the wound free from septic or other infection, the subsequent sloughing process, on account of the greater space, not to be so much feared as in the case of a child. Taking, however, into consideration all the above facts, the balance of evidence appears to me by far in favor of the older method with the scalpel, especially for children; and without detracting from the merit of a most valuable instrument, I would very strongly urge its unsuitability for the performance of tracheotomy.

Beneficial Effects of Convallaria.

After detailing a case in the *Practitioner*, April, 1884, Dr. Frederick T. Roberts says:

My experience of the use of convallaria in cases of cardiac disease has not hitherto been so satisfactory as the reports of the value of the drug had led me to expect (*Practitioner*, xxix., 226, 384); but in the case just described, the good effects resulting from its administration were marked and unmistakable. Practically, it might be summed up as a case of mitral obstructive disease, with irregular and inefficient cardiac action; deficient secretion of urine; moderate dropsy of the legs; and considerable ascites. Whether or not the last-mentioned symptom depended partly on morbid changes in the liver, is doubtful. The obvious results of the administration of the convallaria were:

1. A distinct improvement in the action of the heart, which became more regular and efficient, while the thrill and murmur became more evident.

2. A considerable and progressive increase in the quantity of urine produced.

3. Rapid diminution and ultimate disappearance of the œdema of the legs and the ascites.

The compound jalap powder helped, no doubt, to get rid of the last symptom; but the other effects noted were unquestionably due to the convallaria, and the increase in the quantity of urine must have been an important factor in removing the dropsical accumulation. I have thought it worth while to report this case in support of the value of convallaria in the treatment of cardiac affections, although I do not for a moment believe that it will entirely supersede other drugs. The patient is now practically well, so far as symptoms are concerned, but the signs of the mitral obstructive disease are very distinct.

A Case of Compound Fracture of the Leg, Treated on a New Splint.

In the *Brit. Med. Jour.*, May 10, 1884, Dr. F. T. Paul thus writes:

The following case is reported in illustration of the use of a splint which I am now recommending for the treatment of compound fractures of the leg, and disease of the ankle-joint:

Hugh R., aged 15, a rivetter, was struck by a large iron plate on the outer side of his leg. When seen, the sharp end of the upper fragment of the tibia was protruding two inches out of a wound at the inner side of the leg, in the lower third. Ether was administered, and the wound enlarged, and thoroughly carbolized. The bones were accurately fitted together, and a stout wire passed round them, and tightly twisted. Then, the patient being still under the anæsthetic, the splint was applied in the following manner:

With a strip of lead the contour of the front and back of the sound limb is taken from a few inches above the knee, down the tibia, over the toes, heel, calf, and back to the thigh. A strip of stout hoop-iron ($\frac{5}{8}$ inch by $\frac{1}{8}$ inch) covered with rubber tubing, is then bent to lie easily over the outside of the lead pattern, following all its deviations accurately, so that it may fit without pressing unduly on any part (Fig. 2). When the splint

FIGS. 1 AND 2.

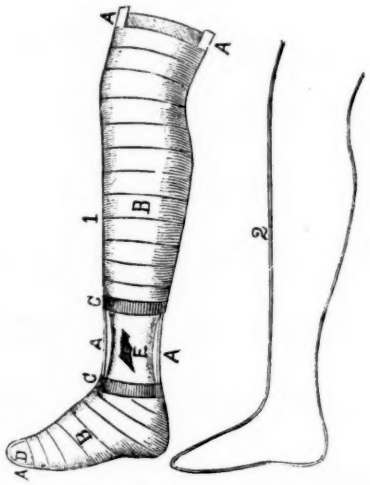

FIG. 1.—From a photograph on the fifth day. (A) The splint. (B) The paraffin bandage. (C) The wax and carbolic oil finish. (D) The antiseptic gauze showing from under the stiff bandage. (E) The fractured limb.

FIG. 2.—The splint of hoop-iron covered with rubber tubing.

is ready (it is of course prepared before the anæsthetic is given), and the bones have been wired, the whole limb is thoroughly carbolized, and the foot and leg well bandaged with antiseptic gauze, leaving a wide interruption at the site of the fracture. Over the gauze a layer of domette bandage, saturated with hot paraffin-wax, is placed, or a plaster of Paris bandage. As soon as the stiff bandage has set, the splint is put on, and more wax or plaster bandages are applied to retain it firmly in position. Lastly, cotton-wool is packed under the edges of the bandage at the interruption, and brushed over till saturated with Howe's mixture of beeswax and carbolic oil, and the antiseptic dressing is completed (Fig. 1). A very little subsequent care in the dressings will prevent any discharge from getting between the leg and the splint.

The advantages of this mode of treatment are that no deformity of the limb can possibly take place, as the bones are wired and permanently fixed under an anæsthetic; and that the repair is rapid, owing to the absence of movement necessary in the ordinary method of dressing compound fractures. The choice between paraffin and plaster of Paris bandages must depend upon the weight of the limb, and the fixation of the fragment. When the limb is small and the fragments are well fixed, paraffin is quite sufficiently rigid; but under the reverse conditions plaster of Paris should be used, at any rate for some part of the bandage. Paraffin is much the better material in every way, except for its want of sufficient rigidity in the warmth of the bed. In this particular case paraffin was used, and answered admirably. There was a good deal of oozing of blood through the night, but not a drop passed inside the splint. The case was dressed once a day for a week, and then every other day for a fortnight under the spray, when it was stopped, as the wound was healing well. On the eighteenth day the wire was untwisted, and the bones were quite firm. Granulations rapidly appeared in the bare bone at the bottom of the wound, and no necrosis occurred. The highest temperature attained was 100°, and that only on one occasion. On the seventh day the patient was dressed and taken to the Medical Institution in a cab, without the least pain or inconvenience, owing to the perfect support given by the splint; and now, six weeks after a severe compound fracture, he is up on the couch, with the wound almost closed, and the measurements of the leg in every respect normal.

In cases of disease of the ankle-joint with discharging wounds, the splint should be fixed with paraffin, or simply with strapping, leaving all the heel and instep open, and the leg well protected under the splint by a soft or paraffin bandage. If the heel suffer from pressure on the lower bar, the leg and foot should be attached first to the upper bar alone, and then by a bandage round both. The dressings should always be slipped between the heel and the lower bar, or discharge will collect there and decompose.

The splint may be obtained from Messrs. Krohne and Sesemann, in London, and from Mr. Critchley in Liverpool. For hospital use, for compound fracture, it is best ordered in lengths of 5 to 6 feet for adults, to be bent to pattern by the surgeon; but in private practice, and for disease of the ankle, the pattern can be traced on paper from the strip of lead, and the splint ordered about half an inch larger in all dimensions than the limb.

Abscess of the Lung.

Since we are liable at any moment to meet such a case, the following case, which Dr. McKenzie Booth reports in the *Brit. Med. Jour.*, March 8,

1884, will be read with interest as enabling us to detect the trouble: The patient was a girl aged 13, of a markedly phthisical family, who had from time to time suffered from bronchitis. About a fortnight before she was first seen, she had an attack of bronchitis; and, when seen, she was much reduced in strength, and was rapidly losing flesh. Her appetite was entirely lost. She had irregular exacerbations of fever, and severe colliquative sweats, mostly toward nightfall. Temperature 102°; pulse 120 to 140; breathing was very short and hurried; the cough and expectoration were much less than they had been. On percussion, there was slight dullness over the supraspinous fossa behind the right apex; otherwise normal. Auscultation discovered crepitant *râles* over the right apex posteriorly and anteriorly. Almost all food was rejected soon after swallowing; the bowels were much constipated. A purgative was given; sinapisms were applied over the right apex; small doses of opium and digitalis were given every three or four hours. Milk and lime-water, beef-tea, and port-wine, were administered every two or three hours. For the next few days, except that there was less vomiting, the symptoms grew more pronounced. At the end of a week, the temperature was between 103° and 104°, and the pulse could not be counted. About three weeks from the commencement of the bronchitis (eight days after she was first seen), a severe fit of coughing set in, during which pus was expectorated to such an amount as almost to choke the patient. Expectoration continued to be copious for a few days, though gradually diminishing. Percussion-dullness gave way, and for a time the resonance was almost amphoric; whilst gurgling alternated with cavernous breathing. At the end of a fortnight, the cough and expectoration were nearly gone, and the patient was rapidly gaining strength and flesh, although there was still percussion-dullness and broncho-vesicular breathing over the right apex. There was also marked swelling (due seemingly to lymphatic infiltration) over the right side of the neck above the pulmonary apex. After the discharge of the pus, the treatment consisted of carbonate of ammonia, with squills and senega, with free supplies of port-wine and nourishment, and afterwards tonics generally, and preparations of iron; and, under this treatment, the patient recovered speedily.

Reviews and Book Notices.

BOOK NOTICES.

A Treatise on Ophthalmology for the General Practitioner. Illustrated. By Adol. Alt, M. D. 1 vol., 8vo., pp. 244. J. H. Chambers & Co., St. Louis.

Though ophthalmology is one of the closest specialties in surgery, it is requisite that the general practitioner should acquire a thorough knowledge of it, so far as it is concerned with the more usual diseases and minor operations. This much Dr. Alt proposes to give in the volume before us. He treats of diseases of the eyelids, lachrymal apparatus, orbit, conjunctiva, cornea, iris, etc., giving to each a short chapter containing what he thinks most important for his purpose. Necessarily his discussion of many lesions is inadequate to rendering the reader competent to treat them. It could not be otherwise. But this is a universal fault of such compendiums.

There are a reasonable number of illustrations of moderate value which set off the text.

We must express our surprise at the author's statement in his preface that he does not know of any book on ophthalmology, written solely for the general practitioner and his wants. He must have been but little familiar with the literature of his specialty not to have known of several, as, not to speak of others, the excellent manual of Dr. Schell, of this city.

Sexual Neurasthenia: Its Hygiene, Causes, Symptoms, and Treatment, with a chapter on Diet for the Nervous. By George M. Beard, A. M., M. D. Edited by A. D. Rockwell, A. M., M. D. 1 vol., crown 8vo., pp. 270. Price, $2.00. E. B. Treat, publisher, 757 Broadway, New York.

This work was one of the latest, if not the latest, production of the lamented Dr. Beard. It is strikingly characterized by both the faults and the merits of his style and method. He rarely wrote a dull page, and rarely advocated a sound theory. Adopting early the biological views of the English positivists, he carried them without misgiving to their utmost limit in the discussion of medical questions. It is really curious to see how he accepted without question any result which he thought to follow from his theory of evolution, and strove to make facts support it. In this work, for instance, he defends anthropophagy as the most suitable diet for man.

This volume deals with those cases of nervous exhaustion, which he claimed were due to sexual excess in the male. His descriptions are vivid and his suggestions often valuable; but many of his cases would receive another name from those less exclusively given to theories of nervous diseases.

——Those who would like to see a more than usually learned expos'tion of the principles of the eclectic school of medicine should read a short pamphlet, entitled "The Scientific Basis of Eclecticism in Medicine," by Dr. C. A. F. Lindorme, of Topeka, Kansas. His statement of the principles is based upon the dynamic relation of drugs to diseases.

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CARELESSNESS OR IGNORANCE?

The French as well as the German Government have each sent a separate scientific commission to Egypt for the purpose of investigating the cholera epidemic there. The French Commission returned home in January, all through with its work, and reported, "that they had detected the real cause of the Asiatic cholera, and that this was to be found in a bacillus," of which they gave description and drawings. The German Commission continued its diligent researches for several weeks longer, and then went to Calcutta, there to make further investigations. Dr. Koch (discoverer of the tubercle bacillus), the President of the German Commission, sent his fifth report home from Calcutta in January. From this report we translate its last part, as the report of the French Commission regarding its discovery of the pathogenic cause of cholera has given rise to a great deal of dispute. Dr. Koch writes:

"From medical journals I have learned that the French Commission sent to investigate the cholera epidemic in Egypt has said in its report that it had arrived at conclusions differing from those I respectfully submitted, and that it had discovered in the blood, organisms which it considers to be peculiar of cholera. This makes it appear as if the German Commission had taken the wrong path, and I consider it, therefore, my duty to give your Excellency my views of the French report.

"There are found in varying numbers in the blood of the healthy human being, aside from red and white globules, small, round, pale form-elements, the so-called blood-discs (blutplättchen). In some febrile diseases, as typhus, pneumonia, these discs are greatly augmented in number, and on account of their resemblance they have been frequently taken for bacteria. In the blood of persons suffering from cholera, and in that of cholera corpses they are also mostly augmented, as we have constantly observed in our investigations. Besides, this fact is by no means new, but has been already mentioned by former investigators. So, for instance, D. D. Cunningham in his article, 'Microscopical and Physiological Re-

searches into the Nature of the Agent Producing Cholera,' has already given (1872) a very good drawing of these form-elements in the blood of cholera patients. And as the most approved methods have not enabled us to recognize in this blood any other elements, which had any resemblance to bacteria; and as further the description given by the French Commission exactly corresponds to that of the blood-discs mentioned, I am forced to the conclusion that the French Commission has committed the same error as other investigators before it, and has taken the blood-discs for specific organisms. Any etiological connection between cholera and these blood-discs cannot possibly exist, for these discs, as already mentioned, are met with in the blood of healthy, and also of such persons as suffer from other diseases."

It is less the mistake, for *errare est humanum*, but the fact that the French Commission made so much noise of its discovery, and hinted at its superiority over the German Commission. The French Government will now be sorry that it has not at least sent men who were acquainted with all that is known of the normal and abnormal constituents of the blood, as it is plain that only such men are competent to institute researches of so difficult a kind.

We may add, that Koch succeeded in Calcutta, two months ago, in discovering the real bacillus of cholera; it is met with only in the intestines, and is greatly distinguished from all other microzymes.

HOPE AS A REMEDY AGAINST DISEASE.

Dr. J. Mortimer Granville has been lately rather severely handled by the Medical Press of London, because he wrote a letter on this subject to one of the daily papers. He is criticised as having performed an unethical act in thus advertising himself in an unprofessional manner in a lay journal. This question we will leave to our transatlantic brethren, while we say a few words upon the subject-matter of his letter.

But little touched upon, Hope, as a remedy against disease, is, if wisely and judiciously employed, one of the most valuable and useful means that the physician can employ. Call it what we may, and reason about it as we please, no man of experience will for an instant question that imagination, the prejudices, the mental condition, the conviction of the patient, in many cases, exerts a most powerful and a most real influence upon the progress and termination of diseased conditions. Has it not happened to every one of our readers (it repeatedly has to us) to discover accidentally, so to speak, a condition of chronic disease, which has evidently been present for years, and yet the patient has maintained fairly good health, and is, at the time of the discovery, in no immediate apparent danger; yet when told that he is afflicted with an incurable disease that may carry him off in a few days, or that he may live for months, immediately wilts, like the sensitive plants when touched, and dies in a day or two?

Again, do we not all know of cases of chronic disease, in persons with a happy, hopeful, contented disposition, disease that we felt sure would soon prove fatal? and yet we see them go on day after day and year after year enjoying apparently good health. Of course we are familiar with and thoroughly recognize the fact that worry, that mental anxiety, is diametrically opposed to good health and long life; and in this fact we recognize the explanation of the influence of depressing opinions and advice; for if we tell a man with a nervous temperament that he *may* die in a few days, from that moment all peace and contentment vanishes from his life, while anxiety, worry, and unrest takes possession of his whole being.

The practical point to be deduced from these reflections is that it will redound not only to your patient's advantage, but also to your own professional reputation, to make it a rule always to take the most hopeful view that is possible of the patient's condition, especially when the man or woman is one of the "nervous, worrying kind," and always to remember that "hope kept alive" is the great secret of success among quacks. Let us steal their thunder.

THE RESPONSIBILITY OF OBSTETRICIANS.

In some papers sent us lately from New Zealand, there is the report of a case of a Dr. Parry, who attended a woman in confinement. Her death ensued suddenly, and was found on post mortem to have been brought about by rupture of the vagina. It was alleged that the rupture was caused by the rough measures of the medical attendant, but there was no conclusive evidence of this submitted.

The physician was indicted for manslaughter, and although the testimony was conflicting and insufficient to a medical mind, he was convicted and sentenced to four months' imprisonment.

The New Zealand Medical Society held a meeting to discuss the subject, when a resolution was passed that the verdict in the case was not warranted by the evidence.

Dr. Parry had not used any instruments, and the society expressed its opinion by a unanimous vote that the highest obstetrical authors unite in saying that ruptures of this nature nearly always depend on diseased conditions of the vaginal tissues. Some have occurred in the most skillful hands; and when they take place without the violent use of instruments, they may be considered proofs of pathological changes in the walls of the organ.

We note this case, as it is one of general and grave importance. It might happen to any one at any time, and that a physician should lose his liberty and reputation from the ignorance of a jury is something that we should be on our guard against. The matter is one which merits a special study by medico-legal writers and obstetricians. We shall be glad to receive and publish any original observations calculated to elucidate this point.

Notes and Comments.

The Pyrexia and Cold Bath Treatment of Enteric Fever.

This is the topic of the hour in England, and many papers on the subject are found in our exchanges. In the *Brit. Med. Jour.* for April 12, 1884, we note a paper by Dr. Francis H. Welch, in which he maintains that the pyrexia is less an exponent of the extent and degree of the gland lesion than of the impressionability and sympathy of the system to the progressing changes; and, upon the whole, it seems that the younger the individual, the more pronounced will be the pyrexia and general symptoms, and the less the possibility of gauging the gland lesion by the temperature records. With reference to the cold bath treatment, he says, "Cooling applications are always grateful to the patients, and beneficial; but immersion in a bath is a process (even when we have all the requisite appliances at hand) which requires a skilled and trained official and attendants to regulate its effects and ward off possible bad results. And, carry it out as carefully as we may, a certain amount of discomfort, physical and mental disturbance cannot be avoided. It is difficult to prevent the patient from exerting himself, and the younger the patient the more the probable disturbance. What has seemed to me the best course to pursue in the application of cold to the skin generally is, in mild and moderate cases, to frequently sponge the body with water feeling "chilly," say every half hour, not wiping it off, and merely covering the surface with a light sheet, or not even that; in the severe cases, to make the applications continuous by a small sheet wrung out in cold water (and made more so, if necessary, by experience) and packed close to the naked body, with a light outer covering, and repeated according to results.

Such a packing is within the scope of an ordinary attendant, can be carried out without inconvenience or movement to the patient, the materials can always be got, and a waterproof covering under the lower sheet will keep the bed dry. Moreover, I believe that it will meet all the requirements of the great majority of cases. Instances, however, will occur in which the body-temperature cannot be reduced by it, and resort may then be had to the bath to meet the pressing danger. Yet even the influence of the bath is limited: and I suppose most have met examples in which repeated immersions have failed to stop the production, or prevent the accumulation, of excessive heat in the frame, the patient succumbing to its effects in spite of all our efforts.

It is hardly necessary to add that movements of air over the body will assist the influence of the cool applications, nor would it be difficult in most rooms to rig up a "punkah" to carry this out more effectually.

A Rapid Case of Acute Cerebro-spinal Meningitis.

The following case, which Dr. Albert Wilson

reports to the *Brit. Med. Jour.*, April 12, 1884, is interesting on account of the extreme rapidity with which it passed through the three stages of cerebral fever (Trousseau) or cerebro-spinal meningitis. Each stage lasted twenty-four hours:

"I was sent for at the commencement of the second stage. The patient, Mr. A., aged nearly eighteen, was in good health on the 21st of February, 1884. On February 22, he complained of headache at the forehead and posteriorly, loss of appetite, pain in the stomach, and constipation. At night, he vomited green fluid, and was restless. This was the first stage. On February 23, at 5 a. m., the parents were awoke by moaning, and found him tossing about in bed, and unable to speak. I saw him at 6 a m. The patient was semi-conscious, very pale, throwing his arms and legs about, and rubbing his stomach; his eyes were half open, and very watchful of all my movements. The conjunctivæ were sensitive; the pupils dilated. He always pushed my hand away when I touched him, and if offered food, would knock the spoon or cup away. The skin was cool. Pulse 72; the tracing was normal. He was too restless for the thermometer to be used. I ordered twenty grains of bromide of ammonium and ten grains of chloral every two hours till he was quieter. There was nothing to account for the illness except over-study. At 11 a. m., his condition was the same. There was no rigidity of muscles nor epileptic state. Food and medicine had to be forced, the patient resisting his utmost, even trying not to swallow. He moaned constantly, and was worse when his relations approached, and strongly disliked my presence. His watchfulness was very marked, but he could not speak. The last time he spoke was about 1 a. m. At 4 p. m., he passed motions and urine in the bed. He fell out of bed twice. In both cases, he was found in a sitting posture, the head and shoulders resting against the bed. He did not at any time hurt himself or strike against anything hard. At 10 p. m., he had had four doses of bromide of ammonium and chloral, and also two thirty-grain doses of bromide of ammonium, but without any soothing effect. Pulse 72; skin cool. The restlessness and moaning had increased. The patient did not sleep during the night. This ended the second or 'apyretic' (Trousseau) stage. The respiration was not irregular, which is unusual.

"On February 24th, 11 a. m., the third stage commenced. Muscular excitement was diminishing. The thumb was tightly opposed, and the flexed over it. The head and neck were forcibly retracted. The limbs were flexed. The stomach was retracted. There was no purposive resistance, although he had great difficulty in swallowing, and was very restless. Pulse 100; skin hot and dry. The conjunctivæ were injected; the pupils contracted. He was comatose, moaning constantly. Large quantities of urine were passed involuntarily. At 4 p. m. he was seen in consultation with Dr. Hughlings Jackson. There was much less muscular resistance, and he swallowed quietly. Opisthotonos was increased. Pulse 120. Temperature (axilla) 103.6°. The optic discs were normal. The tendon-reflex was normal. The bromide was continued in thirty-grain doses, with the addition of ten grains of iodide of ammonium. At 10 p. m., coma was deeper. The head was more retracted. He was almost unable to swallow, but since 4 p. m. had had two doses of his medicine. Temperature 104°; pulse 120. He died at 8 a. m. on February 25th.

Dislocation of the Wrist.

Since dislocation of the wrist-joint without fracture of the radius is a very rare accident, the occurrence of which is denied by some surgeons, the following case which Dr. John Cochrane reports in the *Edinburgh Med. Jour.*, May, 1883, possesses peculiar interest. Two boys were running at great speed and a collision was unavoidable, and in order to break the shock his patient had held up his hand and received the impetus on the palmar surface with such violence as to immediately throw the wrist out of joint. The physical signs of dislocation were quite evident, and there was thorough distortion. He placed a splint along the palmar surface and bandaged the hand and arm, and ordered perfect rest. In the evening he saw him again, and he still felt very easy. In the course of the next day, however, considerable swelling of the tendinous sheaths of the muscles of the arm appeared, and there was now considerable pain in that direction. This was evidently due to the amount of stretching, etc., which the muscular structures had undergone.

Under the effects of turpentine stupes, and laudanum locally applied, swelling and pain rapidly subsided, and the patient made a rapid progress towards recovery. The temperature never went very high during this attack of inflammation. For a few days afterwards he wore the arm in a sling. At the date of report he had perfect use of the joint and suffers from no bad effects.

Pneumonia Treated by Cold Baths.

M. Gignoux, of Lyons, has lately published a paper consisting of details of five cases of pneu-

monia. In four of these cases he had resorted to baths, and in one to cold applied by means of compresses of ice-cold water renewed at intervals of five minutes, a bath not being at hand. All were severe cases; four recovered, and one died. The fatal case appeared to derive benefit from the bath, although the pulse was sufficiently feeble from the first to warrant a foreboding of death. The treatment was carried out with much resolution; one patient had thirty-two baths in seven days; another fourteen in three; and in the case which proved fatal they were given regularly every three hours for three or four days. The temperature of the baths ranged from 68° to 75° F. M. Gignoux, from his experience, thinks very highly of the baths; and these cases, although few in number, are carefully reported, and will make a valuable addition to the now accumulating experience of this plan of treatment in pneumonia. The pamphlet is entitled *Observations de Pneumonies traitées par les Bains Froids.*

The Specificity of Gonorrhœa.

In the course of his remarks on gonorrhœa, before the Philadelphia County Medical Society, which we have noticed elsewhere, Dr. White related the following: A patient of his had a mistress, with whom he had lived for many years—in fact, they were practically man and wife. Dr. W. was sure that the woman was true to the man. The man contracted a urethritis, as Dr. White believes, from some innocent muco-purulent discharge from his mistress. He went to his family physician, who told him that he had gonorrhœa; but not believing in its non-specificity or through negligence, failed to impress upon him the fact, which Dr. White seems firmly to believe, that urethritis or gonorrhœa is not necessarily derived from a pre-existing specific disease. The man, therefore, suspecting his mistress, abandoned her with harsh words. She, deprived, unjustly as she believed, of the support and love to which she had been accustomed for so many years, became despondent, and within ten days committed suicide.

Resection of the Ribs in Empyema.

As of interest in connection with the paper by Drs. Bruen and White, recently published in our pages, we note that at a recent meeting of the Paris Société de Chirurgie (April 23), M. Hermann, of Mulhouse, read notes of a case of multiple rib resection for an empyema which had existed many years. By means of an I-shaped incision, of which the central line corresponded to the axilla, he resected long pieces of the third, fourth, fifth, sixth, seventh, and eighth ribs, under strict antiseptic precautions. The result was not satisfactory, repair not taking place, so that ten weeks after the operation there was a large excavation exposing the diaphragm and lung covered by granulations. From this experience, Hermann agrees with Berger that it is well not to operate when the lung is firmly adherent posteriorly. Probably he would have obtained a better result had he contented himself with a less radical measure, or performed the resections at intervals instead of at one operation.

Wood-wool Dressings.

We had occasion some time since to refer to this article as a dressing for wounds, and we now note from the *Lancet*, April 12, 1884, that Mr. Ormsby, of the Meath Hospital, Dublin, has recently been using wood-wool dressing after operations, and speaks highly of it. The following are brief notes of a case in which this method was used: A man aged fifty-three was admitted for disease of the tarsal bones of the left foot, extending for some distance into the lower ends of the tibia and fibula. Amputation was performed a hand's breadth below the knee-joint, ether being administered by the Ormsby inhaler; Carden's method, by oval skin flaps and circular division of the muscles, being the operation adopted. At the second dressing wood-wool was applied. There was a little secondary hemorrhage, which was easily controlled, and the case has progressed favorably.

Fracture of the Patella.

To the New York Surgical Society, at a recent meeting, Dr. F. Lange presented a patient, a man sixty-two years of age, who illustrated the usefulness of a limb after fracture of the patella, in spite of a distance of three inches between the fragments. The patient had had fracture of the patella several times, and the last time the injury occurred three or four years ago, and there was also rupture of the crucial ligaments, as evidenced by hyperextension of the knee-joint and great lateral mobility. The plan of treatment which Dr. Lange adopted was similar to that recommended by Dr. Little, and the immediate result was very good; but after a time the gap between the fragments began to increase and afterward became quite extensive, and measured three inches; and yet the patient was able to walk quite well, could go up and down stairs, and could exercise the limb very well.

CORRESPONDENCE.

Hobby Riders.

EDS. MED. AND SURG. REPORTER:—

Your very excellent journal has contained nothing so refreshing in a long time as was the article by Dr. Mitchell in the issue of May 3. I wish that every young man in the profession could read that article. It is not alone brim-full of solid facts, but they are couched in terms so plain and have such a convincing way with them that the article cannot fail to do good. It, indeed, was high time that some one should stand out and cry "halt" to the rushing mob who are willing to follow the leader who has the loudest voice. I am glad to see that the attempted revival of an antiquated and barbarous treatment for pneumonia has received a good and sudden set-back at the hands of a medical man who can show experience as well as philosophy for his position.

At the time of their appearance, I read Dr. Corson's articles. The venerable doctor's plea for general depletion seemed to me to be not only a lame one, but also one that modern pathology could not explain. But here is a man who has practiced many, many years. He has cured many cases of pneumonia. He bled regularly. If I were to object to this treatment and give all of the very many indisputable reasons why such treatment is both unnecessary and unreasonable, he would silence me by one question: "How long have you practiced medicine?" Are the long years of constant study and observation to be overthrown by the theories of striplings? Well, that depends.

At a glance, the errors these older members of the profession sometimes make do not seem to stand out in the bold relief they really do, owing to the fact that a large class of the profession are ever on the alert for footsteps to follow. It is all very well for our professional teachers to admonish students to "hew to the line," and all that. It is an undeniable fact that a great majority of them are followers—not leaders. They are content to accept the "say-so" of others, and have no itching desire to be other than routine practitioners. This is the class to whom just such articles as Dr. Corson's do inestimable harm. That the lancet is often of value in the treatment of disease, no one doubts. But the attaching of undue importance to its use in any particular disease is where the error creeps in. I am acquainted with two very estimable physicians, one of whom gives quinine for everything almost, while the other very seldom gives it. These preferences and prejudices are in a mild way hard to guard against; but when let run riot, they work great evil for those who are not able to shield themselves from constant bias. This hobby-riding is carried to a lamentable extreme in many of our medical schools. I well remember how two professors in one of your city's colleges spent much valuable time one winter, in '76, over "bleeding in puerperal convulsions." The discussion did not amount to anything. The favorites of each believed all that one said, and nothing that the other said. In the heat of the discussion, many of the students failed to see that both men were right, and both wrong. To take blood from every patient having puerperal convulsions would be as poor practice as to bleed every case of pneumonia. Some of both should be bled; and to tell which to bleed and which not to bleed, requires the knowledge and judgment which alone distinguish the progressive, active, live physician from the humdrum doctor.

If all medical men did their own thinking, such articles as Dr. Corson's could not fail to do good, since the mere mention of such extreme views by a man of years and experience would set men to thinking on the subject. Since there is no top round to the ladder, many, too many, members of our profession are content to climb only so far as is necessary, and there stop. These are the men to whom these hobbies do great damage. Struck by the beauty of diction, they lose sight of the main question, and follow the writer or speaker, never once questioning his utterances or weighing his deductions. These are the men who fill the medical journals of the land with miraculous cures. Their stereotyped form runs like this: "Was called to see W. M., 8 years old; had fever, dry cough, etc., etc. Diagnosed membranous croup. Gave syrup of squills 20 drops and sulphate of copper 2 grains every hour. Case recovered in two days." Intelligent men who know anything about the disease, know that such cures are stuff. And yet twenty years hence that same reporter will regale us with just such thin facts.

Homœopathy doubtless had its origin in the abuse of good medicines by old-school physicians. It is not so very long ago that to be attended by an old-school doctor meant bleeding, salivation, and hypercatharsis, no matter what the disease was. Is it any wonder that a new line of practice sprung out of such horrible torture? A leeched and suffering people were willing to embrace anything that promised immunity from treatment little less severe than the disease. Any relief, even one teeming with the sophistry of a Hahnemann, might be embraced.

Magazine writers and the professors in our too-numerous medical schools should exercise the wisdom and judgment in their utterances that many of them fail to do. A distinguished member of the profession in Iowa, and the head of one of our schools, said to his class: "When in doubt, give the iodide of potassium." Can a sane man imagine a more senseless bit of advice? When in doubt, get thee to a library! Young men who quit the plow and workshop, with little preparatory learning, to enter the great band of unrewarded doctors, swallow such utterances *in toto*.

The remedy for all this must come from within—careful study to learn what is true—and by keeping a sharp lookout for what is false. A determination not to be hobby-riders will make many of our writers and teachers much more useful and much less dangerous members of the profession, while the stigma that attaches to cranks will not so frequently be justly attached to us as a hard-worked, poorly-paid council. J. A. DE ARMOND, M. D.

Le Claire, Iowa.

Again—Conception without Intromission.

EDS. MED. AND SURG. REPORTER:

The REPORTER having in the issue of March 11,

1884, noticed the discussion by Risconi concerning the manner and method of conception, two physicians have since reported in its columns cases clear and sure, of conception without intromission, to which list I now make my addition.

An unmarried lady of 21 years of age applied to me for relief of amenorrhœa. Her full habit, glowing cheeks, red lips, and general picture-of-health appearance, told heavily against anemia. Close questioning revealed that she had a beau. Being a strict Catholic, she had always forbidden him sexual indulgence, but she had allowed him to skirmish the marriage state by placing his penis against the vulva, and thus lying together without intromission. While in this position, an emission had occurred.

This was a puzzle. Was she pregnant? Time will tell, I thought; so writing a placebo prescription, she was dismissed.

A few months later she came boisterously into my office, sobbing and lamenting, "Oh! I know it is so—I know it is so; I feel it more," she cried. A digital examination, aided by a thorough ocular inspection, showed an unruptured hymen, with a circular opening the size of a dime. Auscultation gave clearly the fœtal heart-beat, and in due time a bouncing boy was announced to the world. This would seem to illustrate again the possibility of impregnation without the semen being injected within the uterus.

One criticism I would suggest of Dr. Cass' report of April 12, in the REPORTER. He censures Americans as being led too easily by European teachers, and hints that we follow them in their theories of conception. In Reese's edition of Taylor's Medical Jurisprudence, occurs the following paragraph, page 718: "It has been a question, whether when intercourse has taken place against the will of a woman, pregnancy could possibly follow. It was at one time thought that the will of a woman was always necessary to the act of impregnation, and therefore if she became pregnant she must have consented to the act, and that the charge of rape was unfounded. Such a defence would not be admitted. Conception, it is well known, does not depend on the consciousness or volition of a female. EVEN PENETRATION TO THE VAGINA IS NOT ABSOLUTELY NECESSARY FOR IMPREGNATION."

C. C. VANDERBECK, M. D.

Philadelphia.

NEWS AND MISCELLANY.

Iowa State Medical Society.

Reported by J. F. KENNEDY, M. D., of Des Moines.

The thirty-second annual session was held in Des Moines May 21–24, with President S. E. Robinson, M. D., in the chair. The attendance was unusually large, owing to the fact that Iowa had sent to the American Medical Society at its late session the largest delegation present except that from Pennsylvania. There were 122 registered as permanent members and 66 as delegates, making the total number present, including visitors who became members by invitation, fully 250.

The session was one of the busiest ever held by the society.

At 2:30 p. m., 21st, President Robinson delivered his annual address, in which he said:

"I desire for a few moments to call your attention to the present condition, socially and ethically, of the medical profession in the State; as observed from my standpoint as a country practitioner. And while I believe this to be quite a pleasing condition in both these particulars, I may suggest something in the way of further improvement. It is, perhaps, more difficult for one to judge of present conditions and tendencies of a class, of which he is an integral part, and of its needs, than of any other question which he could consider. One could easily judge of the condition of a class or a profession in the past, if he were furnished with the history of its surroundings; but our judgment is liable to be warped by personal interests when we come to investigate present conditions of a class to which we belong. There seems to me to be good reason for satisfaction with the social standing of our fraternity. We here in Iowa have no especial ranks or grades in society to strive for or boast of, but we have in every community varying degrees of education and intellectual attainment; and the honest, intelligent physician everywhere, in city and country, finds himself associated with the best intelligence, and a co-worker and peer of the best educated in every community, a welcome visitor in health as well as in sickness, in every grade of society in the community in which he lives. But we find that nearly every locality is able to judge between the intelligent, educated physician and the ignorant, uneducated pretender who may, in some unaccountable way, have attained the title of "Doctor." The first is usually a leader in society, looked up to as an adviser and counsellor in educational, literary, and social affairs, while the latter has no place except as a hanger-on, being tolerated, but not desired, in any neighborhood in the State. And yet, by reason of legislation in some of our neighboring States, tending to protect their citizens from this kind of impostors, we have more than our just proportion of this class of parasites subsisting upon the uninformed and unfortunate. And I believe it to be the duty of this society, and of the individual members of the profession, to renew and redouble the effort recently made to secure such legislation as shall be a partial protection, at least, to the people of the State from the plundering by the soulless villains who are ready to prey upon the credulity of the poor and suffering, and to relieve our State from the odium that attaches to it as the cess-pool for the degenerate material thrown off by the profession of neighboring States, by the help of good legislation.

"There is probably no man in any community who has or could have greater political influence than the practicing physician; he comes in contact with every class in the community, the educated and the ignorant, the rich and the poor, and with all he stands in great respect, every one esteeming his judgment and highly respecting his opinions. Yet there is, perhaps, no class of equal number, who really exercise so little political influence, in matters of which it is recognized to be most thoroughly informed, and upon which it is so nearly agreed. There must be some reason for this, and for the common outside prejudice that

exists which becomes apparent so soon as we as physicians urge the consideration by our legislature of any matter having any relation to our profession. Just so soon as we were agreed upon a law which we could recommend to the legislature and to the people, as furnishing them some protection and tending to secure for them better medical service (this we accomplished without difficulty when we first considered the matter), then we heard from every school district in the State a cry 'that the doctors are trying to secure protection; they want a law enacted that will give them better business and increase their income.' Now, why was this so, and why did the people and the lawmakers misjudge our motives? They will give us credit for honesty and integrity in other matters, why not in this? I think it may be due in some measure, at least, to our professional sensitiveness. We all know that professional benefits were not thought of by the committee that gave especial consideration to the question of medical legislation, and we all with one accord said so—and the law has not yet been enacted. The majority of the profession ceased to actively use their influence in that direction, lest their motives continue to be misjudged, and the few who continued to urge it could only fail of success. Suppose it were true that we were in need of protective law, or would be benefited by the measures proposed and desired, is there any disgrace attached to that? Do not men engaged in every other legitimate business desire and work for such measures as shall enable them to pleasantly and profitably pursue their several avocations; the farmer and the mechanic, the merchant and the manufacturer, and all the rest? Then why need we explain, deny, and apologize when such measures are proposed, if they be construed to work for our benefit and make our profession more profitable and its practice more pleasant, even though these measures were conceived with no such end in view? I therefore believe that it is advisable that this society urge upon its members, and the members of the profession throughout the State, that they use their influence with their legislators and in the several communities in which they live, in favor of such a law by our State legislature as shall give protection to the citizens from impostors in medical practice; and esteem it no disgrace, if it operates to protect the business of their profession at the same time that it saves their patrons' purses, their health, and often their lives."

Dr. Caldwell moved that a committee of three be appointed on the president's address, of which Dr. McCleary, of Indianola, shall be chairman. The chair appointed Drs. McCleary, Hill, and Caldwell.

After transacting the preliminary business, the following papers were read as per programme:

"Report of Committee on Medicine," S. B. Chase, Osage, chairman; "Acute Catarrhal Pneumonia, a Primary Disease," G. E. Crawford, Cedar Rapids; "Contusion of the Brain from Contra-coup—a Contribution to Cerebral Localization," J. H. Green, Dubuque; "Glucose," W. D. Middleton, Davenport. Dr. Middleton gave an interesting account of the manufacture of this product, and suggested that as an article of food in certain conditions of mal-nutrition from an inability on the part of the liver to convert the food into grape sugar, this digested product, glucose, might be used to advantage. He gave some clinical facts coming under his observation, confirmatory of his suggestions.

D. W. Smouse, of Des Moines, read a paper on "Locomotor Ataxia, with Case," detailing a case he had under treatment, the result being that the case was going from bad to worse.

R. J. Farquharson, Secretary of the State Board of Health, read an interesting though very lengthy "Report on Hygiene and Sanitary Science."

A. W. Cantwell, of Davenport, read a "History of the Davenport Board of Health from its Organization."

Robert McNutt, of Des Moines, read an exhaustive paper upon "Ethnic Forces," which presented some curious facts in relation to the hybridity of races as a cause of physical and mental decay. He begins away back in the dawn of human history and the mists of antiquity, and seems to adopt the views of Haeckel that primitive man lived upon the earth 100,000 years ago—that the various types of mankind are exceedingly persistent, and do not diverge or change their ethnical characters to any perceptible degree during tens of thousands of years, no matter to what opposite extremes of climate and food they may have been subjected. He would, therefore, class the leading types as not having had a common origin. That the inferior races—the negro, the Dravid, and the Mongol—had long precedence on the earth before the Aryan appeared; that the Aryan is the only true historic and progressive race, and that little or nothing can be expected of the side-races in working out the great problems of civilized life.

He shows that the Aryan colony that pushed its way east into India made remarkable progress while the stock was kept pure, but in time they absorbed Dravidian blood, and fell, as a consequence, into that degenerate condition witnessed at the present day.

Egypt, the cradle of the sciences, was also an exceedingly progressive country while the Khamitic white blood was pure, but, absorbing the taint of the African, lapsed into a stationary condition, and then decay and ruin. He claims that the Malay and the Mound-builders and the hunting Indian are hybrids or crosses between the original Mongol and Dravidian, possessing the bad qualities of both races, similar in physical and mental characteristics, being *morose* and *brutish* in their nature.

He classes the African as the oldest of the races, and nocturnal in habit, and a natural born rapist. He shows that this type, when crossed with pure Aryan stock, produces the worst specimens of humanity, both as to diseased and debilitated physical conditions and horrid mental depravities. He shows from the reports of the penitentiaries of Virginia and Louisiana and Missouri, that this hybrid population furnishes the great bulk of the criminal class in the states where the African is numerous. He then gives the pure Aryans of the great republic of the west a gilded painting of their wonderful progress in useful inventions and their advancement in arts, sciences, and law, and thinks that it will continue in the onward march for ages to come, provided the Aryan stock can be kept pure.

He suggests that the law-making power shoul'

decree any attempt at miscegenation as the highest crime against the state and against the nation. It was punished as a capital crime in India, but in time it failed to save them, and they were utterly lost.

S. B. Thrall, of Ottumwa, read a very practical and suggestive paper upon "Boards of Health and Contagious Diseases."

M. G. Sloan, of Dexter, reported a case of "Perityphlitis."

G. P. Hanawalt, of Des Moines, read the following paper on "Bichloride of Mercury in Surgery, in which he said:

"How gladly will we welcome corrosive sublimate, which, in the language of Dr. Neer, of New York, is 'antiseptic more potent, safer, not volatile, and easily obtained everywhere.' The reading of the excellent paper by the above-named gentleman in January last, preceded by a conversation with his estimable partner, Dr. Henry Able, of New York city, on the subject now under consideration, caused my first experiments in the use of this, to me, new antiseptic, since which time it has been my standard, and has yet to disappoint.

"An idea of the germicidal property of bichloride may be gained from the fact that the recent developments of Koch in Germany, and of Dr. Sternberg in our own country, prove beyond doubt that in a fluid literally creeping with bacteria the organisms were quieted by adding $\frac{1}{30000}$ ext. of the salt, while $\frac{1}{20000}$ part ended all activity present and future. The fluid thus treated failed to produce putrefaction in other organic solutions. Acting on this wonderful statement as to its antiseptic and germicidal qualities, Dr. Thallon, of Brooklyn, N. Y., adopts the use of the bichloride internally in the various forms of diphtheria, contending, with much reason, sustained by clinical proof, that a quite sufficient quantity may be taken into the system with entire safety to destroy, or at least to greatly modify, the septic process in the blood in this terrible disease. It is well worth a trial, for we all know with what feeling we regard the invasion of septæmic symptoms—the feeling of being far out at sea, with neither compass, book, nor anchor.

"And now as to method in surgical use. A solution containing gr. viij. to Oj. of water, or what is better, eight grains dissolved in strong alcohol, and added to a pint of water, is about $\frac{1}{1000}$ in strength and about the proper strength for general use, although this may be varied considerably, $\frac{1}{2000}$ being doubtless strong enough for most cases.

"Supposing that a compound fracture is to be treated; of course the parts are to be cleansed and adjusted (I mean really cleaned and scrubbed—shaved, it need be, and scoured—under an anæsthetic if required; for if ever cleanliness is well repaid it is in the grateful appearance of comfort about a clean compound fracture as compared with a dirty one), then thoroughly bathed with sponges that have been soaked in and squeezed out of the above solution. Every bit of dirt, blood, etc., should be mopped out, being careful to remove any useless fragments of bone or soft tissues, carefully bringing all parts as nearly to proper place as may be, and adjusting the limb upon whatever splint may be chosen, first enveloping the injury in oakum, absorbent cotton, or 'cheese cloth' (which has previously been wrung out of the bichloride solution) laid about in even layers, so as not to disturb by unequal pressure; the whole to be surrounded by a thin roller of 'crinoline,' or gauzy material, likewise treated with the solution. This dressing is to be let alone until the oozing from the wound is seen on the outside of dressing, at which time, if there is no marked increase in temperature, a few layers of fresh dressing may be applied without disturbing the original, and then left again for a day or two, when the dressing, sutures, and drainage-tube (if any have been used) may be removed, and a dressing, similar to that used at first, may be applied; and, in most cases, may be left alone for a considerable length of time, some even for twenty, thirty, and even more than forty days, if we are to credit the statements recently published; but I would not advise, much less practice, this continuous delay in removing dressings, as beyond ten or fifteen days 'tis thought that danger from septic complication has passed, and there is nothing gained by clinging to stale dressings when clean and fresh ones may be applied easily and with great comfort to the patient.

"If an amputation has been done, the vessels are to be secured with catgut ligatures, which have been thoroughly soaked in the solution of bichloride, then kept in absolute alcohol until used—the stump is to be cleaned of every speck of blood and debris of every kind, by thoroughly wiping and pressing with the purified sponges and solution, as in case of fracture. After all oozing has ceased (and not before), the flaps are to be approximated carefully and united by the continuous suture—using the finer catgut, if choice can be made, treated as in case of ligatures—leaving ununited space only at proper places for the ends of the drainage-tube. The stump may then be literally slushed with the $\frac{1}{1000}$ or $\frac{1}{2000}$ solution by means of a fountain syringe fitted to the projecting end of the tube, and kept running until the liquid comes through unstained.

The stump, including ends of tube, may be covered by ample layers of well-picked oakum, jute, cotton, or soft thin fabric of any kind, and well bound with a thin roller, all of the dressing having previously been treated with the favorite solution. This thin and gauzy bandage is made use of because its light texture is not only comfortable to the patient, but allows the surgeon to detect the slightest oozing from the wound, thereby being able to decide when his dressing should be removed.

"Perhaps the best time to remove the drainage-tube will be on the third or fourth day, when this may be done, leaving the sutures and ligatures to take care of themselves, which, if catgut has been used, prepared as directed, need give the surgeon no uneasiness, as they will readily absorb, leaving nothing to be removed as in the case of wire or silk. If at this time the dressings have become saturated by discharge, or if patient's temperature has materially increased, a clean dressing throughout, much like the first, may be applied—but if there is little or no stain through outer dressing, and especially if comfort is the prevailing feeling, the drainage-tube alone is to be removed, and no further disturbance of

parts or dressings made for three or four days, perhaps longer.

As to toxic effect by absorption of this solution, the nearest I have seen was an attack of diarrhœa, possibly attributable to dressing, in a weak girl after amputation at middle of thigh, which, however, was rapidly cured without abandoning the dressing.

Dr. Weiss states that beyond a slight irritation about the edges of the wound, he has not not seen anything like poisonous effect from the use of this solution. This record will surely compare favorably at least with any of the well-known antiseptics.

Instruments may not be dipped in this solution on account of its well-known corroding or marring tendency—a one-twentieth solution of carbolic acid being much better for that purpose. Dr. Abbe mentions the fact that immersing the hands alternately in solutions of carbolic acid and bichloride causes a dirty blackish deposit in the crevices of the skin, which is readily removed by washing in a very weak solution of muriatic acid.

In conclusion, it may not be amiss to refer to the well-known virtues of this solution as a gargle—alike in diphtheritic or specific lesions of mouth and throat—and also to the testimony of leading dermatologists as to the satisfactory result of its use in an acne.

If, then, to its well-known virtues as a general remedy, we add potency, cleanliness, and trifling cost, as an antiseptic, deodorizer, and germicide, we are not far from an ideal "up-to-date" drug.

Dr. W. F. Peck differed from the paper, holding that perfect cleanliness and nature would ordinarily do away with any necessity for the use of antiseptics.

D. C. Brockman, Marengo, read a paper on "Improved Jacket Brace for the Treatment of Spinal Curvature."

"Leprosy" was the subject of a paper read by R. J. Farquharson, Des Moines.

Henry Ristine, of Cedar Rapids, reported a case of "Nerve-stretching;" and C. M. Hobby, of Iowa City, a case of "Malignant Degeneration of Benign Tumors."

J. Williamson, of Ottumwa, presented a report as chairman of section on "Obstetrics and Gynecology."

Jennie McCowen, of Davenport, read a paper upon "Insanity in Women," which she concluded by saying:

"We are gradually being emancipated from the habit of viewing mind as a mysterious, intangible entity, the sequences of which, in both normal and abnormal states, might be evolved from the inner consciousness of the observer, and are beginning to accept the more rational theory that (whatever the nature of mind) its manifestations take place through the nervous system, and the derangements are the result of nervous disease, to be studied by the same methods of investigation as other nervous disease; that insanity is not a metaphysical entity, but a disease of the nervous system manifesting itself by physical as well as mental symptoms.

"I can but think that the future of psychology is to come through a more careful study of the relations subsisting between physical conditions and mental states—not the abstract acceptance of the theory merely (which is not a new one to the profession), but the practical and painstaking application of it to individual cases. And as the hospital physician rarely sees the disease in its earlier stages, the experience and observation and study of the general physician as well, is necessary in order to arrive at the whole truth.

"A disease which deprives a man of his rights and privileges as a member of the community in which he lives; of his right to manage his own business affairs in his own way; of his right to testify before a judicial tribunal; of his right to liberty and the pursuit of happiness according to his own methods; of his right to the enjoyments of home, to the society and care of his family, to himself; a disease which tends neither to recovery nor to death, but to chronicity—during which its subjects cease to be producers and become consumers through long periods of years; a disease which year by year seems to increase in frequency and at the same time to yield less readily to treatment, may surely claim from us the most careful study by the most approved methods known to the profession."

An excellent practical paper on "Obstructive Dysmenorrhœa" was read by G. O. Morgridge, of Muscatine, and one on "Uterine Therapeutics," by Robert Stephenson, Centerville.

A paper detailing the treatment of a case of "Stricture of the Œsophagus" was presented by E. W. Clark, Grinnell.

H. B. Young, of Burlington, made a report on "Ophthalmology and Otology," and he was followed by a paper by F. E. Crittenden, Des Moines, on "Treatment of Obstruction of the Lachrymal Canal."

J. K. Gardner related his experience with the new hypnotic, "Paraldehyde."

The following report was made by the Committee on School Hygiene:

The undersigned, your committee to whom was referred the subject of school hygiene, for the purpose of calling the attention of the State Board of Health to some of the more important defects in the present methods of educating children, often brought to our notice as physicians, respectfully submit the following report:

WHEREAS, The attention of this society having been directed to the imperfections in the location, construction and arrangements of school buildings; also to the management of pupils by parent and teachers; therefore,

Resolved, 1st. That ample play-grounds, with proper shade and drainage, should be carefully considered by school boards.

Resolved, 2d. That school houses should not be more than two stories in height, that the rooms should be supplied with abundant means for supplying fresh air and ventilation, so as to secure an equable temperature at about 70° F. Furthermore, that the stairs should be wide but not steep, and the doors for egress should be large enough and open outward.

Resolved, 3d. That desks should be so arranged that the light will be introduced on the left side if possible, upon the right side, or from behind, but never so as to strike pupils squarely in the face.

Resolved, 4th. That we condemn the practice of sending children to school before they are seven

years of age; also the tendency to the "cramming" process which so often checks, rather than promotes, physical and mental development. Again we urge greater discretion on the part of parents about putting children into school in special cases, when the health is imperfect, or where the child is remarkably precocious.

Resolved, 5th. That this Society request the State Board of Health to take some action to bring this subject to the attention of the State Superintendent, the County Superintendents, and Boards of School Directors.

Resolved, That the Board of Health should also make known the facts collected and tabulated, regarding the increase of diseases of the eye in school life; also, impart instruction in the methods by which this organ is relieved of the excessive strain which modern civilization makes upon it.

Wm. Watson, H. A. Gilman, George F. Jenkins, G. H. Hill, E. H. Hazen, Committee.

The following is the list of officers, the standing committees, and the representatives of the Society to the American Medical Association for the ensuing year:

President.—H. C. Huntsman, Oskaloosa.

First Vice-President.—H. B. Ransom, Burlington.

Second Vice-President.—C. C. Griffin, Vinton.

Secretary.—J. F. Kennedy, Des Moines.

Assistant Secretary.—G. E. Crawford, Cedar Rapids.

Treasurer.—G. R. Skinner, Cedar Rapids.

Place of Meeting.—Cedar Rapids, on the third Tuesday of May, 1885.

Committee of Arrangements.—H. Ristine, Cedar Rapids; C. M. Hobby, Iowa City; A. B. Reed, Cedar Rapids; W. E. Egan, Atlantic; G. R. Henry, Burlington.

Committee on Publication.—J. F. Kennedy, L. C. Swift, Des Moines; W. D. Middleton, Davenport; J. Williamson, Ottumwa; G. R. Skinner, Cedar Rapids.

Committee on Necrology.—First district—J. A. Scroggs, Keokuk.

Second district—A. W. Cantwell, Davenport.

Third district—S. N. Pierce, Cedar Falls.

Fourth district—L. P. Fitch, Charles City.

Fifth district—W. C. Schulze, Marengo.

Sixth district—E. W. Clark, Grinnell.

Seventh district—W. H. Ward, Des Moines.

Eighth district—P. Llewellyn, Clarinda.

Ninth district—J. D. Holmes, Audubon.

Tenth district—J. A. Meredith, Ames.

Eleventh district—G. W. Briggs, Sioux City.

Committee on Ethics.—S. E. Robinson, West Union; J. D. McCleary, Indianola; A. W. McClure, Mt. Pleasant; P. S. Mosher, Boone; W. S. Robertson, Muscatine.

Delegates to American Medical Association.—First district—Dr. J. Maxwell, Keokuk; Dr. Scroggs, Keokuk; Dr. Stever, Fairfield; Dr. A. A. Gillman, Mt. Pleasant.

Second District—Dr. Adair, Anamosa; Dr. W. S. Robertson, Muscatine; Dr. A. B. Bowen, Maquoketa; Dr. W. D. Middleton, Davenport.

Third District—Dr. Wm. Watson, Dubuque; Dr. G. B. Wood, Fairbanks; Dr. D. M. Wicke, New Hartford; Dr. S. N. Pierce, Cedar Falls.

Fourth District—Dr. A. D. Bundy, St. Ansgar; Dr. Gardner, New Hampton; Dr. D. S. Brainard, Stacyville; Dr. S. B. Chase, Osage.

Fifth District—Dr. S. S. Lytle, Iowa City; Dr. G. R. Skinner, Cedar Rapids; Dr. D. C. Brockman, Marengo; Dr. C. C. Griffin, Vinton.

Sixth District—Dr. G. P. Clarke, Prairie City; Dr. S. B. Thrall, Ottumwa; Dr. J. R. Gorrell, Newton; Dr. H. C. Huntsman, Oskaloosa.

Seventh District—Dr. M. G. Sloan, Dexter; Dr. L. H. Sweber, Colo; Dr. G. P. Hanawalt, Des Moines; Dr. E. T. Likes, Winterset.

Eighth District—Dr. J. B. Wilson, Creston; Dr. L. S. Graves, Afton; Dr. P. W. Liewelling, Clarinda; Dr. W. H. Gibbon, Chariton.

Ninth District—Dr. W. E. Egan, Atlantic; Dr. J. E. Sansom, Anita; Dr. C. H. Pinney, Council Bluffs; C. W. DeMotte, Shelby.

Tenth District—L. J. Alleman, Boone; D. S. Fairchild, Ames.

Eleventh District—J. D. McVay, O. D. Donley, G. H. Grimmell, Charles Enfield.

The committee recommended that the incoming president have the power to fill all vacancies on committees and delegations, and to send delegates to neighboring state medical societies.

FACETIOUS.

S. E. Robinson, for —— Guthrie, offered the following resolution, which was unanimously adopted:

Resolved, That the Legislature of the State of Iowa be requested to frame a law making it obligatory that the formulary of patent medicines and proprietary medicines be printed on the inside labels of the package or bottle, so that an antidote for such poisons may be had in time to save the patient.

After the induction of the new officers into their respective stations, and the usual votes of thanks, the final reports of the officers were presented.

A. Von Mansfelde, the efficient Secretary of the Nebraska Medical Society, was present during the entire session, and contributed largely to the interest of the sessions by his participation in the discussion of several papers.

Thomas Siveter, who had been carried on the *mortuary* list of the society for several years, was present, and made several interesting little speeches. He was one of the organizers of the society, and is 85 years of age, and bids fair to become a centenarian.

There were from eight to twelve lady physicians in attendance. Their respectful attention, punctual attendance upon all the sessions, modest demeanor, and lively interest in all the papers and discussions, won for them all the profound respect of the sterner sex, and may have had something to do in leading several members to remark that not on any occasion was any member thought to be under the influence of intoxicants.

Illinois State Medical Society.

At the meeting held in Chicago, May 20, 21, and 22, the following officers were elected for the ensuing year:

President—Dr. Daniel S. Booth, of Sparta.

Vice Presidents—Dr. S. C. Plummer, of Rock Island; and Dr. W. T. Kirk, of Atlanta.

Treasurer—Dr. Walter Hay, of Chicago.

Secretary—Dr. S. J. Jones, of Chicago.

Assistant Secretary—Dr. H. B. Buch, of Springfield.

South Carolina Medical Association.

Officers for the ensuing year:

President—Dr. A. A. Moore, of Camden.

Vice-Presidents—Drs. C. Kolloch, of Cheraw; James Evans, of Florence; and T. J. McKie, of Woodlawn.

Recording Secretary—Dr. John Forrest, of Charleston.

Corresponding Secretary—Dr. H. D. Fraser, of Charleston.

Treasurer—Dr. H. W. DeSaussure, jr., of Charleston.

The Association meets in Charleston, April 23, 1885.

West Virginia Medical Society.

Officers for ensuing year:

President—Dr. George Baird, of Wheeling.

Vice-Presidents—Drs. T. A. Harris, of Parkersburg; R. R. Frey, Terra Alta; and S. H. Austin, of Lewisburg.

Treasurer—Dr. John A. Campbell, of Wheeling.

Secretary—Dr. S. L. Jepson, of Wheeling.

Board of Censors—Drs. J. H. Manown, L. C. Hunt, J. H. Brownfield, J. O. Wall, J. M. Bowcock, W. J. Bland, and D. W. Allen.

Weston was selected as the place of meeting for next year's session.

American Climatological Association.

At the meeting held in Washington, May 3 and 5, the following officers were elected for the ensuing year:

President—Prof. A. L. Loomis, of New York.

Vice-Presidents—Drs. F. I. Knight, of Boston, and W. H. Geddings, of Aikens, South Carolina.

Secretary and Treasurer—Dr. J. B. Walker, of Philadelphia.

Council—Drs. J. H. Tyndale, of New York; E. T. Bruen, of Philadelphia; E. D. Hudson, o New York; Frank Donaldson, of Baltimore; Beverly Robinson, of New York.

California State Medical Society.

At the meeting held in San Francisco, April 16 and 17, 1884, the following officers were elected for the ensuing year:

President—R. Beverly Cole, San Francisco.

First Vice-President—W. S. Thorne, San Jose.

Second Vice-President—W. P. Gibbons, Alameda.

Third Vice-President—A. H. Agard, Oakland.

Fourth Vice-President—H. J. Crumpton, Lakeport.

First Assistant Secretary—Dr. Powell, Marysville.

Second Assistant Secretary—Mrs. L. M. F. Wanzur, San Francisco.

Treasurer—F. W. Hatch, Sacramento.

Texas State Medical Society.

At the sixteenth annual meeting held in Belton, April 22, 23, 24 and 25, the following papers were read:

"Evolution," by Dr. R. W. Park, of Waco; "The Mineral Waters of Texas," by Dr. J. M. Willis; "Periosteum Grafting," by Dr. C. M. Trueheart, of Galveston; "Animal Ligatures," by Dr. H. W. Dudley, of Hillsboro.

Officers for the ensuing year:

President—Dr. H. C. Ghent, of Belton.

Vice-Presidents—Drs. E. P. Becton, of Sulphur Springs; H. H. Darr, of Caldwell; and M. Matkin, of Hearne.

Secretary—Dr. W. J. Burt, of Austin.

Treasurer—Dr. J. Larendon, of Houston.

The Association meets in Houston, Texas, on the fourth Tuesday in April, 1885.

Lack of Refinement in the American Medical Association.

A resident of Washington writes to the *N. Y. Med. Jour.* as follows: "The usual disgraceful performances took place at the receptions. Mrs. L. generously opened her beautiful house, and provided as fine a table as Demenet could serve. She was rewarded by having men stalk in (hats on their heads) from the front room to the dining-room, where they fought like wolves for places at the tables, overturning piles of plates, breaking her expensive ornaments, and soiling her rugs with pools of tobacco-juice."

We all know that a small army of hangers-on attend the meetings of the American Medical Association, and that most of these fellows manage to get cards admitting them to the receptions, where their boorishness tends to bring the Association into discredit. In view of these facts, it seems to us that the interest of the profession would be furthered if measures were taken to put a stop to the admission of these interlopers.

Items.

—Medical London has been exercised over the fact that John Bright, who has been ill, called on a homœopath to attend him.

—The published report of an English benevolent society says: "Notwithstanding the large amount paid for medicine and medical attendance, very few deaths occurred during the year."

—At a meeting of the Cincinnati Medical Society, March 25, Dr. Sattler said that while no bacilli were found in the breath of phthisical patients, yet plates of glass covered with glycerine and hung in consumptive wards became covered with bacilli.

QUERIES AND REPLIES.

EDS. MED. AND SURG. REP.—

Will you or your many readers, through the MEDICAL AND SURGICAL REPORTER, give a treatment for a case that has resisted all therapeutic efforts? The patient, about one year since, had syphilis, though now no symptoms remain. About two months since, after sexual intercourse (and even at longer intervals without it) the penis is seized with intense itching, which is followed by small vesicles that contain serum. These dry up and there is no more trouble until another act of coition or the elapse of several weeks without the act. I have used various local applications, and iodide potash, mercury, arsenic constitutionally. MC.

DEATHS.

DAY.—In Mechanicsburg, Pa., Monday, May 12, 1884, after a short illness, Dr. Alfred Day, in the fifty-fifth year of his age.